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ORIGINAL ARTICLES.

REMARKS ON INTRA-PELVIC INFLAMMATION IN THE CHRONIC FORM.

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[Presented to the Section on Obstetrics and Diseases of Women.]

The terms parametritis and perimetritis are erroneously supposed by many to include the whole subject of intra-pelvic inflammation. These terms are misleading, because as now often used they present to the mind the idea that all cases of inflammation not confined to the uterus must belong to one or the other of these.

Actual observation teaches the important fact that perimetritis and parametritis generally exist together, and that they are usually complicated with inflammation of the uterus, and not infrequently the ovaries and fallopian tubes are involved. When we use the terms perimetritis and parametritis, if anything like a definite diagnoisis is made we ought to understand that the greater *intensity* of lesion is manifested in one of the tissues, but that inflammation extends to the others also. It is apparent, therefore, that to determine the tissue in which the inflammation is located is often difficult, simply because uncomplicated cases are extremely rare.

The complexity of the lesions of the pelvic organs and tissues might be inferred from the almost absolute unity of the vascular and nervous supply, and the fact that the genito-spinal center is the common controlling influence.

I make these general remarks upon the pathology of intra-pelvic inflammation, as an introduction to what I have to say of the various forms of its manifestation in different organs and tissues within the pelvis.

The more obvious conditions of chronic parametritis are:

First—Suppuration, or chronic pelvic abscess, located more frequently, but not always, in the broad ligament, the consequence of cellulitis. Chronic purulent accumulations are often found also behind the uterus, and are doubtless the result of local peritonitis.

The chronic pelvic abscess is generally the sequel of acute inflammation, and attains chronicity from the imperfect evacuation of the pus after acute inflammation has terminated in suppuration. The discharge in these cases may be continuous, but the suppurating cavity, in not being completely evacuated, is consequently not obliterated.

The evacuation is deficient sometimes because the outlet is through a tortuous canal; at others because the termination of the canal is in the rectum or bladder. The muscular fibers of the walls of these receptacles, after a certain amount of pressure is taken off by partial evacuation, contract around the opening, and do not yield until the accumulation renews the pressure sufficiently to overcome their resistance. These processes of partial evacuation and accumulation are repeated indefinitely. Again, temporary interruption of the purulent discharge may be caused by the distal extremity of the evacuating tube being higher than some portion of the suppurating cavity.

If the abscess is located in the connective tissue, the elasticity of that tissue will very materially diminish the size of the suppurating cavity each time the evacuation takes place, and eventually may entirely obliterate it. It does not always do so, however. The sufferings experienced by the patient in these cases consists in pyæmic and septic symptoms, resulting from the resorption of the pus and débris of d composing material contained in the cavity. While the vital energies of many patients will sustain them until the process of evacuation is completed, others will die from exhaustion.

The remedy in such cases is found in surgery, and consists in making a more direct outlet through the vagina, large enough to at once completely evacuate the pus and enable the surgeon to cleanse and disinfect the cavity. Where the evacuating canal is tortuous or too small it may sometimes be dilated by instruments until the cavity can be evacuated and washed out. Where the pus is accumulated in a sac formed in the peritonæal cul-de-sac behind the uterus, the difficulty will not be so easily overcome by enlarging the opening, as the pyogenic cavity is not surrounded by elastic tissue, as in the broad ligament. It will, as a consequence of this latter fact, require a longer time to fill up by granulation. In such cases we may hasten granulation by stimulating the cavity with injections of a weak solution of permanganate of potash, swabbing it out with iodoform or some other stimulating remedy. A cavity situated in this position will bear such stimulation better than one situated in the broad ligament. In cavities thus located we will often find decomposing coagula the remains of a hematocele, the most common origin of abscesses in this part of the pelvis.

The suppurating variety of intra-pelvic inflamma-

tion may, however, be primarily chronic, and never rise above that grade.

In such cases the inflammation persists for several years. A considerable quantity of pus is formed without hectic or other symptoms of absorption, save a general feeble state of health. In these indolent abscesses the pus is formed and remains enclosed in the cavity for a very long time, with, in fact, very little tendency to evacuation. I saw one case of this kind in which I know from observation that pus was retained for three years. Upon first seeing the patient I was so well assured of the presence of pus in the right broad ligament that I proposed to puncture it. The patient, however, declined, and, residing in a distant city, went home. Three years afterwards I made an opening in it, and removed a quantity of dirty putrid sero-pus. The patient was then in an advanced state of phthisis, and died in a few months.

Another case I saw with Dr. T. D. Fitch. The patient assured us that the tumor had been discovered seven years before by her medical attendant, who told her she had cellulitis of the broad ligament, which had already suppurated. There were eight ounces of the same thin pus as in the former case.

A cavity that has contained pus for so long a time has ceased to be pyogenic; its walls are thin and yielding over a large surface, and when evacuated has no tendency to fill up again. These cases are sometimes connected with the tubercular diathesis.

Second.—Chronic parametritis is often met with when there is a decided tumefaction—in one of the broad ligaments, more frequently than otherwise—the remains of an acute attack, and, when not noticed or attended to properly, is a latent focus of phlogosis that may easily be elevated into the acute grade. We frequently meet cases of this kind among poor patients, who are obliged to exert themselves more than is compatible with the process of resolution. The consequences are that the woman has repeated returns of acute attacks until suppuration takes place. Sometimes in these or even more favored patients injudicious thoroughness and earnestness in an examination to ascertain the exact condition of the patient develops an acute inflammation that inflicts fearful suffering, and perhaps cripples the patient for life. Or, again, without sufficiently careful examination to ascertain the existence of this nodule of inflammation, irritating applications are made to the uterus, or a pessary is introduced that presses upon the locality of the effusion, or the womb is lifted high enough to make traction upon the diseased ligament, to give origin to acute inflammation. When the tumor is small, or in some remote part of the ligament, these mistakes are very liable to occur. There is no doubt also that in numerous instances these effusions are primarily the results of chronic inflammation, and have for their origin causes operating less violently. After the absorption more or less completely of the exudate in such cases, the broad ligament may be left thickened, rigid, shortened and irritable for a long time, and become the nidus for an acute attack.

Careful manipulation will enable us to discover any of these conditions without doing damage. They should always be the object of treatment, and removed before treatment for chronic metritis or replacement of the uterus is safe or justifiable.

The proper local treatment is hot-water injections and counter-irritation.

The general management is of the first importance, and consists of alteratives, tonics, feeding and rest. We should expect and require a long course of treatment for the cure of cases of this kind.

Third.—Chronic local *peritonitis* may exist (either as a *separate disease* or a complication of cellulitis, ovaritis, and salpingitis) in the retro-uterine *cul-de-sac*, and over the broad ligaments retaining a displaced uterus in a fixed retroversed or retroflexed position. The fixed position may be maintained by a somewhat solid cohesion of the opposed surfaces of the peritonæl covering of the uterus and the posterior lining of the Douglass pouch. Or by the extension of bands of false membrane that permits of limited motion. When associated with general chronic pelvic inflamation it is but one item, is obvious and easily detected; but when local peritonitis is the only inflammatory condition it may require much care to diagnose it. When I find the uterus turned backward and resisting reasonable force, I suspect this form of chronic inflammation, and if manipulation for the purposes of restoration gives the patient much pain, I am confirmed in such suspicion. Enlargement of the uterus makes that organ, to a certain extent, difficult of replacement, and attempts to do so will generally cause pain; but even in such a case the presumption is that there is contiguous inflammation, and all the cautions to avoid aggravating that condition should be observed. An examination per rectum will give us valuable information as to the presence of retroversion and local peritonitis. By passing the finger through the rectum up the posterior wall of the uterus we will ascertain the condition of the peritonæum as to sensitiveness. With the evidence we may thus gain, and by gentle attempts to move or replace the uterus, we can make a pretty definite diagnosis. This inflammation may also exist in the cul-de-sac without the malposition of the uterus; in this case the tenderness behind that organ will be sufficiently diagnostic.

Sometimes we find local inflammation limited to the vesico-uterine reflexion of the peritonæum, which may interfere with reposition from anteflexion or anteversion of the uterus. In such cases we will find any effort to move the uterus attended with pain, and there will generally also be vesical irritation of an absolute character.

The discovery of peritonæl inflammation in however slight a degree, should be a matter of caution to us against free manipulation for any purpose, and when complicating displacements, subinvolution or chronic inflammation of the uterus should be the main subject of our attention until entirely removed. I am quite sure that the lack of sufficient care in this particular has been the cause of much needless suffering.

This remark, I think, is especially applicable to efforts at replacements of the uterus when that organ is retroverted or anteverted. I would therefore em-

phasize the direction, *not to try to replace* the uterus when such attempts give the patient decided pain. Counter-irritation, hip baths, and large tepid water injections are the main items of local treatment, while the general consists of alteratives, rest and tonics. The latter is of special importance. In many cases, nourishment will be of more value than medicine, as a large number of these patients are profoundly anæmic.

Fourth.—Another condition which accompanies a great number of cases, is inflammation of the ovaries and fallopian tubes. The inflammation of the ovary and tube is not often completely isolated, but is a complication of a more diffuse lesion of the broad ligament, including most of its structures. When ovaritis and salpingitis, one or both, are the only manifestation of existing inflammation, and stand apparently alone, there will be a history of preceding inflammation of the surrounding tissues.

The most important, as well as most frequent of lesions, are indurated deposits of lymph, rendering the ligament rigid and deformed, and false membranes or trabeculæ that fix the ovary especially, and sometimes surround it in such a way as to constrict the nervous and vascular apparatus.

The ovary thus embraced in semi-organized exudation, if its structure is not completely destroyed, is so mutilated that its functions are greatly deranged, and performed with such difficulty as to cause intense local and general suffering.

According to Mr. Lawson Tait, the fallopian tubes are often the seat of chronic suppurative inflammation, which accompanies and outlasts the chronic inflammation of the ovaries. Mr. Tait regards the disease of the fallopian tubes as a more important factor in the reflex and local sufferings, as well as menstrual derangements, than that of the ovaries. While the position that the morbid condition of the fallopian tubes produces greater menstrual disorder than disease of the ovaries is a subject of controversy, it must be admitted that diseased tubes have a share in causing some of them at least, and I think Mr. Tait is right in concluding that in cases of oöphorectomy it is quite as necessary for the relief of the patient to remove a diseased fallopian tube as an unsound ovary. This is not, however, admitting that the tubes in a healthy condition have any direct effect in exciting or in any way regulating the menstrual flow. It has long been a demonstrated fact that inflammation in the broad ligament, and other portions of the pelvic tissues, gives rise to pain during menstruation and causes general hystero-neuroses.

The symptoms of inflammation situated in the ovaries and fallopian tubes are, to a great degree, like those caused by disease of the uterus and perimetric tissues. If there are any symptoms more than ordinarily distinctive of chronic ovaritis it is the suffering during the menstrual period, or the diminution or complete suppression of the menstrual flow.

Sometimes, indeed, connected with ovarian inflammation, there is complete amenorrhœa without any suffering at the periods, or any great amount of derangement of the general health. Gynæcologists not unfrequently meet with cases like the following—viz:

A young lady (27 years of age) at the age of 20 had a severe attack of pelvic inflammation that continued about three months, and, after its subsidence, for several months longer she was the subject of moderate pelvic symptoms.

When entire immunity had come about she observed that her menstrual flow was very much reduced in quantity.

For three years she enjoyed a fair degree of health and was able to exercise her vocation as teacher with her usual comfort. At the end of that time, from exposure during severe exercise, she was again attacked with symptoms of acute pelvic inflammation, in all respects, so far as she could remember, similar to the first. From the inception of the last attack to the present time the menses have been entirely suspended, and yet she is now in the enjoyment of robust health.

From the history of this case I think we can fairly infer that both ovaries were the subject of inflammation, of such a character and degree as to damage their structure sufficiently to render them incapable of performing their functions.

More frequently, however, the stroma is not so greatly changed; then the functions of the ovaries are performed with great difficulty, and attended with local pains and extensive and intense reflex suffering. To the symptoms of this latter condition the term ovarian dysmenorrhœa is correctly applied.

Rest, local depletion—in the earlier stages,—and alteratives are the proper treatment. As the symptoms become chronic we may often derive much permanent good from the effects of one or more setons over the seat of the disease. In some of them the disease is so obstinate and the suffering so great as to justify the removal of the ovaries and fallopian tubes.

Fifth.—We may have cases of slight diffuse, or circumscribed phlogosis or hyperæsthetic hyperæmia, in which no exudation can be detected, and probably there are no palpable anatomical changes. In this form the nerves and blood-vessels are highly excitable because already under the influence of morbific agents that have been acting a long time upon them, but with a degree of intensity short of that condition called an exciting cause. They are in a state of predisposition.

Whether we are justified in speaking of this state of things as inflammation or not, it is quite certainly a departure from a sound condition, in a direction leading to that process. This is probably what authors mean by the term dormant or latent inflammation. It is an actual morbid condition, possessing the two elements, hyperæsthesia and hyperæmia, from which an exciting cause gives rise to the acute form of inflammatory action.

While the inexperienced may awaken acute suffering by injudicious manipulation or the employment of too strong or improper measures of treatment in some of the other forms of chronic inflammation to which I have alluded; it is this occult variety of disease that, figuratively speaking, betrays

the most experienced, skillful, and cautious practitioners into methods of diagnosis and treatment that lead to attacks of acute inflammation, explosive in their suddenness and violence. There is no doubt in my mind that, in its subsidence, acute inflammation sometimes leaves behind it this smoldering susceptibility which lingers for months and even years as a menace to the unwary operator. Without the presence of this relict, or harbinger of acute inflammation, it would have been impossible for our accomplished countryman, Dr. Ceorge G. Engelmann, to collect so many terribly interesting cases as he reported to the Missouri Medical Society in a paper read before that body, and published in the September (1880) number of the *American Practitioner*. Many of these cases occurred in the hands of some of the most skillful gynæcologists. We cannot, therefore, say that they were the result of recklessness or ignorance.

Can we diagnose cases occurring under this division of the subject with sufficient accuracy to enable us to benefit by the knowledge?

Perhaps not always; but in most instances the careful practitioner will have his suspicions aroused by the history and the objective evidence generally obtainable. Judging from my own observation, I should say that the more dangerous cases were those in which this susceptibility was the result of previous attacks of acute inflammation. The history usually is one of inflammation of the pelvis and lower abdominal organs in months or years gone by. A disease, the nature of which may not have been well understood and treated, and vaguely termed inflammation of the bowels, typhoid, or malarial fever.

These by-gone attacks sometimes present so few marked symptoms that their nature cannot be definitely deduced from the history of them, especially when given by an ignorant patient. Most of the cases of the severe and sudden attacks, within my observation, have taken place where, it was fair to infer, this lingering susceptibility was the consequence of foregone acute attacks instead of a primary condition.

In such a morbid state, what would seem trivial exciting causes may produce terrible symptoms and disastrous consequences under even cautious management.

The untoward inflammation arising out of this susceptibility is also often the result of the too exclusive mechanical ideas entertained with reference to the management of affections of the uterus and other pelvic organs. Most of the pelvic organs lie within reach of the fingers, and instruments devised for the diagnosis and treatment of their diseases. We may thus be led to regard them as the proper subjects for free manipulation, without regard to the fact that they are endowed with vital qualities. We may not govern ourselves in our examinations sufficiently by the complaints of the patient, so much as the desire of finding every possible deviation from the natural position, size and consistence of every organ in the pelvic cavity.

Hence, thoroughness of examination in a mechanical sense is not an uncommon source of danger. In our treatment, the same preponderance of mechanical ideas leads to much mischief. A displaced uterus must be rectified by mechanical means alone, often without sufficient regard to other conditions. I have more than once seen cases where the uterus was fixed by effusion from inflammation, treated by forcible attempts at reposition.

Such attempts, I know, are recommended by men who ought to know better.

As a common practice, it would cause extensive suffering, and fail to be attended by any compensating benefits. Very few intelligent practitioners are so reckless as to disregard the actual existence of inflammation under such circumstances. But many times when the inflammation is so slight as not to give rise to noticable effusion, and yet be attended with obvious tenderness, mechanical support is resorted to, and the patient exhorted to bear some pain for the good it will bring her to have the uterus kept in position. Such treatment is usually followed by bad results.

Now, to avoid mischief from the use of mechanical support in uterine displacements, the practitioner should consider all cases in which even slight perimetric inflammation exists as unsuitable for the pessary. And when the sensitiveness characteristic of inflammation exists to a moderate degree, the uterus should not be reposited. Other treatment should be instituted and persevered in until that sensitiveness is removed, before reposition and mechanical support are resorted to. The partisan advocates of the pessary may think this is unnecessary precaution; to which I would reply, that while skillful gynæcologists may sometimes disregard this cautious view of the subject, and obtain tolerance of the pessary, even the best of them will sometimes do mischief enough to more than counteract the good they can thereby accomplish.

Our mechanical views as to the treatment of stenosis and flexions of the uterus are apt to betray us into more dangers than those above mentioned. When this slight predisponent condition is present the use of the sponge, seatangle or other dilating tent is frequently followed by great damage; and it should be remembered that the use of the tent causes this predisposition to inflammation, so that in the consecutive application of tents in any case the second and third become instruments of extreme danger. It is true that in some cases the patient escapes when extra precautions and skill are used, but it is also true that in other cases, notwithstanding all just precautions, terrible results follow.

Now, in all this, I desire to be understood as inculcating the idea that the most accomplished—not alone the ignorant practitioner—may occasionally produce the damaging conditions so appalingly delineated in the paper by Prof. Engelmann above alluded to. Similar remarks are applicable to the use of the stem pessary, either with or without the incisions of the cervix uteri. In estimating the value of mechanical treatment of the uterus we must take into consideration these *exceptional* cases. No man is skillful enough to ignore the fact that he cannot resort to these measures without great hazard to

his patient. His practice must be governed by the recognition of the *possible* consequences that may follow.

If not warned by his own observation, he should be forewarned by the researches and observations of others. I have been cognizant of numerous instances of disaster in all of the mechanical methods I have mentioned, and many deaths have resulted from the employment of some of them. These untoward cases are usually not published. They ought to be published, however, as danger-signals to warn the unwary of the hazards that beset their paths.

As the main object I had in view in writing this paper was to caution my associates against the dangers of converting a chronic pelvic inflammation into a disastrous acute form, I desire to append a summary of suggestions and inferences drawn from it.

1. The sometimes terrible effects of examinations or operations in the pelvis do not often, if ever, take place when there is not a perceptible predisposing inflammation.

2. The inflammation may be so slight as to be easily overlooked.

3. It may be an original condition; the sequence of an acute attack long gone by, or it may be the product of some immediately previous examination or operation, the effects of which have not subsided.

4. To avoid the dangers of acute inflammation we should, in making a first examination for pelvic disease, conduct it in such a way as not to give the patient much pain, and when she complains of much suffering desist at the sacrifice of completeness of diagnosis.

5. Complaints of much tenderness to the touch, or the use of instruments; especially parous women, is sufficiently diagnostic of inflammation upon which to base treatment for that condition.

6. If, with such tenderness, a thorough examination or an operation is imperative, it should be done under profound anæsthesia. There is no question, in my mind, that much less danger of ill effects is incurred in making examinations or operations on susceptible subjects, under the free use of anæsthetics.

7. Examinations or operations should not be repeated until the effects of the first have entirely passed off.

8. As chronic parametritis is a frequent complication of most of the morbid conditions of the uterus it should be always suspected and its diagnosis be carefully considered in all cases of metritis.

9. When chronic parametritis is present it should be the chief, if not the exclusive object of treatment until removed.

10. It is not safe to use the sound, sponge-treatment, or intrauterine stem when there is perimetric inflammation.

11. It is especially dangerous to replace a displaced uterus, when it is bound down by inflammatory adhesions, by any means which will overcome its fixedness by force.

12. The use of pessaries or supports of any kind which find their lodgement in the pelvis is generally followed by disastrous consequences when there is even slight primitive inflammation.

13. All local treatment of the uterus must be conducted with the greatest care in all cases where this complication is present.

FRACTURES OF THE LONG BONES.

BY JAMES R. TAYLOR, M.D., NEW YORK.

[Read before the Surgical Section of the American Medical Association, at the meeting in Cleveland, June 6, 1883.]

MR. CHAIRMAN AND GENTLEMEN:

In the limited time at my disposal I must greatly abbreviate the matter which I had prepared to offer on this occasion. I may claim, therefore, that it will not be possible for me to do justice either to my subject or to myself while omitting such large portions of a paper, which, in the nature of things, should have been presented as a whole. I will try, however, to lay before you as briefly as possible a few of the methods of diagnosis and treatment of fractures of the long bones, which have gradually taken present form in my hands during many years of extensive practice in this class of injuries as a surgeon to the "Out Door Dept. of Bellevue Hospital." I offer no apology for the crudeness or simplicity of some of the methods and appliances which I present—merely stating that with but a few hours for each clinic, and with thirty or forty patients in the ante-room clamoring for admittance to the surgery—and being but scantily furnished with necessary supplies, I seldom have either time or material tor refinements; but must get down to business. What to do must be decided promptly. Dressings must be applied quickly, and in a sufficiently substantial and economical manner to suit the case in the circumstances. Therefore, my constant aim is to simplify my work both as to the time occupied and the expense involved. Hippocrates, in his work on fractures, says "There is no necessity for much study to set a broken bone. Any ordinary physician can perform it." And my respect for and confidence in the utterance of this "shade of the mighty dead" is exhibited in the fact that, I a very ordinary physician, am very often attempting to do it.

He does not mention the necessity for a thorough knowledge of anatomy both general and regional—a good general knowledge of both ancient and contemporaneous mechanico-therapeutics—a good degree of manual dexterity, together with a carefully cultivated discrimination, to enable the doctor to select or invent as the occasion requires—the mechanical means which will secure the greatest advantage to his patient with the minimum of suffering or inconvenience.

He may have assumed that the ordinary physician of our day would be possessed of all these advantages and would not require to be reminded of qualifications of such obvious necessity. And, Mr. Chairman, I think I may assume that, as I have the honor to address, probably the largest and surely the most distinguished body of surgeons ever assembled on the American continent, it will not be necessary, in my humble contribution to practical surgery, that I should enter into and discuss at any length matters of common detail which they all so well understand, or that

I should elaborate every idea to which I may give utterance, or that I should give attention to special conditions or peculiarities of cases. I will also assume that you will justify me in confining myself entirely to methods of diagnosis, which I have thoroughly tested, and to the exhibition and description of the mechanico-therapeutical appliances, also thoroughly tested in my own experience, which I am about to offer for your inspection and consideration. Without wasting the brief time allotted to me in quoting authorities, or in offering opinions of the methods of other more eminent surgeons whose lives and energies have been devoted to the development and improvement of means for the alleviation of human suffering, whether or not those means shall in all cases meet my approval.

But while I wish to abstain from criticising the methods of other surgeons, I can hardly avoid making a remark in this place in reference to the apparatus which is now so commonly used by the profession for producing extension in the treatment of fractures of the femur, viz., the weight and pulley. It has no doubt been very useful in a great number of cases, and it seems to have received the endorsement of many of the writers of our modern text books. But I do not think that any surgeon can accept it as an instrument in all respects suitable for the purpose.

Of course it will produce extension as we apply it, but it is by the clumsiest means known in mechanics. And if an ordinary workman were to present me with such a device for the accomplishment of any important mechanical end, I should conclude that he was a man of but very limited resources, as there are very many far more elegant, and at the same time equally efficient, means within the range of common mechanical science which can be applied for the purpose. This leads me to the few remarks which I have to make on the

TREATMENT OF FRACTURES OF THE FEMUR, ILLUSTRATED BY PLATES III., IV. AND V.

I will not trouble you with the methods of making diagnosis in the fractures of this bone, as there are so many situations in which fractures may occur. And these may be also so different in character that it would require too much time. Then, too, the diagnosis in most of them is made sufficiently clear by the deformity, and by the false motion and other symptoms that I will entirely omit what I would like to say on that branch of the subject, and come at once to the treatment, selecting for my present purpose a simple fracture of the middle third of the bone.

I do this the more willingly, as the principles upon which the various fractures of this bone are treated are nearly identical. And as these principles, as far as I know, had their first recognition in the good old days of Hippocrates, and perhaps chiefly by that gentleman himself, they will require neither apology nor endorsement at my hands. Extension, coaptation and fixation has been the surgeon's motto ever since his day. It is his motto still, and it will continue to be his motto while fracturable bones form the framework of animal structures.

All our inventions and improvements are limited, therefore to mere details of apparatus, and their methods of application for the accomplishment of these necessary steps to the restoration to usefulness of a limb, by the cure of the lesion which we are considering. If you will look at plate III. of the engravings, with which you are supplied, you will see that it represents a good bed of any ordinary kind. It stands level on the floor, that is to say, the foot posts are not raised upon blocks to produce counter-extension. This being to my mind a most objectionable method for obvious reasons, especially if we have a stout plethoric subject on our hands for treatment. Figure 1. Upon the bed represents a nicely padded saddle, so constructed and arranged that its base projects under the nates of the patient, the wings resting against the well-cushioned tuberii ischii, while the upright body rests against the perinæum, fitting the parts nicely.

This saddle is maintained in a vertical position by an iron brace, with an eye at one end, which fits into a hole in one end of a bedplate of hoop iron covered with cloth. On the bottom of the saddle there is also a hook for attachment to the other end of the bedplate. When these parts are in their places, the saddle is in the position shown in the engraving. Attached to the bedplate, right under the base of the upright saddle, there are two pieces of girth-web, the free ends of which are made fast to buckles, which are provided with stems for screwing into the headboard of the bed—one on each side—or the girth-webs may be simply tied to the bed posts.

This saddle when thus placed in the position indicated, with its brace and bedplate in proper relations to it, together with the girth-web straps and screw-

Plate III.

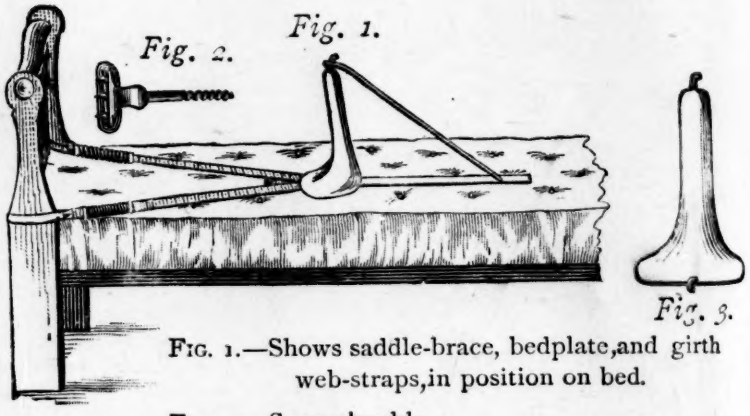

FIG. 1.—Shows saddle-brace, bedplate, and girth web-straps, in position on bed.

FIG. 2.—Screw-buckle.

FIG. 3.—Saddle.

buckles or other means of attachment to the bed-head, is the means by which I make my counter-extension in this fracture.

It will be readily seen that the amount of traction which this apparatus will resist is only limited by the strength of the materials employed in making it, and the endurance of the muscles of the patient. It certainly will resist far more extension force than a prudent surgeon would think it necessary to employ for the purpose he has in view. The efforts of the surgeon in the use of extension, being directed merely to restoring the limb to its normal length, by overcoming unnatural muscular contraction, and not to stretching the limb beyond that point, as he is well aware of the danger attending such procedure.

When it is necessary to remove the saddle temporarily the brace is lifted, and the saddle falls and the bedplate can be pulled to one side. It is readjusted with equal facility. With this apparatus we have a fixed point to resist the extension force. The patient lies comfortably on a level bed, and if he desires it, his head and shoulders may even be elevated a few inches without retarding the progress of, or in any other way interfering with the repairative process going on in the bone.

Of the saddle, the parts subjected to its contact become quite tolerant in a very short time. An occasional sponging with alcohol and water, or the placing of a cool fresh towel, however, will be found comforting and grateful. I may mention here that this method of counter-extension is equally useful in intracapsular fracture, also in diseases of the hip or knee-joint, or wherever counter-extension of the limb is indicated. Combined with this apparatus there are many methods for producing extension. Elastic bands of rubber and other forms of rubber can be made to suit nicely, especially where children are the patients. Modes of application will suggest themselves to any surgeon.

I have also used coiled springs attached to my webbing straps, under the pillow at the bed-head, while the foot of the patient is attached to a hook in the foot-board, stretching these springs sufficiently to obtain the desired amount of extension and securing them to the bed-posts by leather straps. I invented, however, some time since a little extension apparatus which suits the purpose better than anything I have yet seen. Plate V., Fig. 3 and 4. It consists of a coiled spring enclosed in a metal case. One end of the case slides into the other like a telescope tube. The large end is provided with a flange for fastening to the outside of the foot-board. This end of the case is also fenestrated, so that the action of the spring can be seen from without. On the edge of the fenestra there are figures to indicate pounds weight, and a projection on the edge of the inner tube serves as a pointer so that the amount of force required to shorten the case by pushing or pulling the inner part into the outer part is registered. Looking at Fig. 4 you will see that a stem passes through the case, the inside end of which has a cross-head for attachment to the patient by the adhesive side plasters, Fig. 2, the outer end of the stem terminates in a handle. This part of the stem screws into the other part, and is shortened or lengthened at pleasure by turning the handle. By this means the spring is compressed or lengthened so that the exact amount of extension force required in the case can be obtained simply by turning the handle backwards or forwards. Plate IV shows the method of extension by weight and pulley combined with my method of counter-extension by the saddle. The engraving will be easily understood.

As you see in Plates IV and V, the patient is represented as lying on the bed with the dressing completed. Fig. 1 in each plate represents a coaptation splint. This splint is made of what is called Holley's felt—after the inventor. It is made of various thicknesses, and is a very good article for the purpose, as it can be nicely moulded to fit the limb. I use four of these splints nicely padded. Their position is seen in the engravings.

To keep these splints in place, I use four garter bands made of

Plate V.

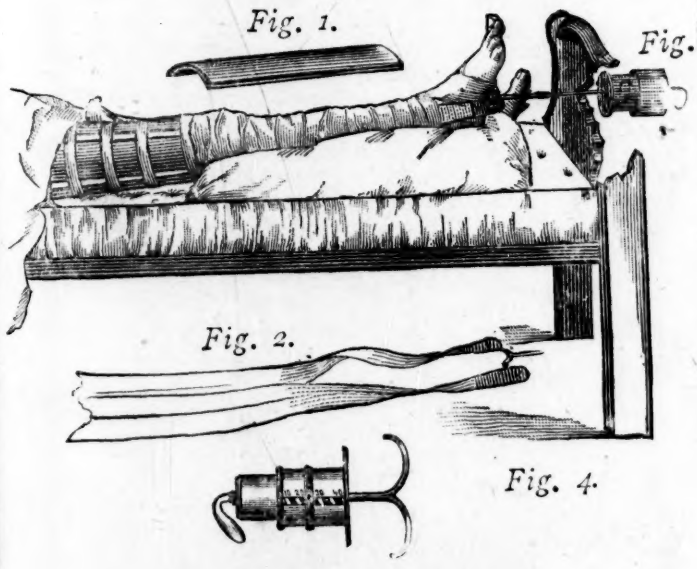

Fig. 1.—Coaptation splint.

Fig. 2.—Adhesive side plasters.

Fig. 3.—Extension foot spring.

Fig. 4.—Extension foot spring enlarged.

Plate IV.

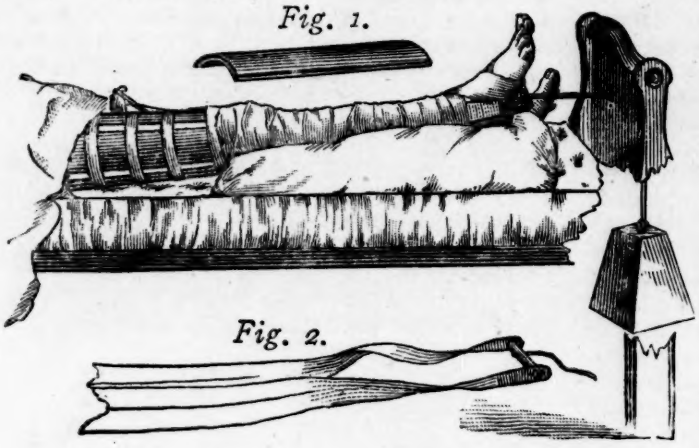

FIG. 1.—Coaptation splint.

FIG. 2 —Adhesive side plasters.

elastic similar to but stronger than that used in making gentlemens' suspenders. Plate VI, Fig. 4. These, in the first place, keep the splints firmly applied, and also, they being adjusted so that they retain a small amount of unexpended contractility, keep up equable pressure during the progress of the atrophy of the soft tissues. I am not insensible to the possibility of mischief following the use of such elastic pressure, if placed carelessly or too tightly upon the limb. I think, however, that no careful surgeon would need to be warned that ligating the limb by any means whatever would be dangerous practice. I will say here, that my own views on the subject of coaptation splints in this or any other fracture of the long bones are very simple. The true splint for a broken bone is the periosteum and the surrounding soft tissues. And if the surgeon keeps in view the fact that the result of his extension and counter-extension, if wisely and effectively applied, is to restore these tissues to their original relations, re-establishing the normal form of the canal in which the bone lies, and that when this has been effected by the application of sufficient force for the purpose, the bone itself will offer no resistance to perfect reposition. And I also assert, that if he does not succeed in re-establishing the original form of this canal, the use of any splints of whatever kind, secured by whatever means, whether elastic or non-elastic, are contra-indicated in the case. I never depend upon the pressure of a splint to do the work which I should do myself, although I recognize their usefulness in reinforcing by gentle and equable pressure the coaptating function of the soft tissues. Perfect coaptation, I am aware, is not in every case obtainable, by whatever means he may employ, but in cases where perfect reduction cannot be effected, extreme care and excellent judgment on the part of the surgeon in the use of splints is indispensable.

Plate VI.

In preparing a fractured femur for extension, I am careful to carry my adhesive side plasters, Fig. 2, up to the seat of the injury, so that no undue traction may be brought to bear upon the knee joint.

Many surgeons terminate these strips below the knee. I prefer the other method. It is an interesting fact, gentlemen, that Hippocrates, nearly five centuries before the Christian era, recommended extension for the rectification of all deformities produced by fracture and dislocation of this bone. He advises "extension in as straight a manner as possible, so that the fragments may unite properly." He also says that "it is a great disgrace to the physician to exhibit a shortened thigh."

It is probably right, then, that we should give him the credit for the introduction of this valuable principle. And as he does not say much about his methods of application, we are by no means certain that he did not use Desault's, Liston's, Buck's, and all the other plans with which you are familiar, including even those offered by your humble servant on this occasion, never dreaming that these great surgeons would re-invent them and get the credit for them all down through future ages. I should mention that I never use a long-side splint. Sometimes, however, a board like a long splint may be fastened to the body and limb to restrain movements. This

can also be effected by a piece of muslin a foot wide, one end being pushed under the hips of the patient from the injured side, and the other over his body—both ends being fastened to the opposite bed-rail. This is more easily worn by the patient, and also answers the purpose of preventing all tendency to yield to the extending force. When the patient has recovered sufficiently to leave his bed, crutches are found to be necessary to enable him to move about for exercise and for other purposes; and if you look at Plate VI you will see a good representation of a saddle-crutch which I invented some time since, and which has given a number of my patients a great deal of comfort and myself much satisfaction. The saddle and suspenders are worn inside of the clothing, the hooks alone coming out two inches below the axillæ. Ordinary sticks of proper length suit quite well for crutches if the top end is chiseled to fit the hooks of the suspenders, as they do not touch the axilla when the patient is suspended upon them. Thus the body can be maintained in a natural posture both while standing on the feet, while sitting on a chair, and while swinging in the act of stepping. I will mention two cases:

Mrs. G., a lady of two hundred and ten pounds weight, came under my care last winter with fractured fibula. When the proper time had arrived I ordered crutches, as usual. Their use was attended with so much suffering, she being afflicted with prolapsus uteri, that she was indisposed to take necessary exercise.

I then had a saddle prepared for her, and nicely padded to fit. This she used during the period of convalescence without discomfort walking three or four hours every day. After she gave up using it, it was re-covered with soft leather and sent to me. It had proved such a pleasant support for her that when her limb was quite restored to usefulness she abandoned the use of the saddle with regret. I pass it round that you may see how it is padded to suit the circumstances.

Mr. B., a gentleman of two hundred and thirty pounds weight, with a similar injury. On the ninth day he procured a pair of crutches, but he got along rather poorly with them. I lent him a saddle, and from that time until he got quite well he used it constantly. It is not necessary for me to explain the advantages of carrying the weight of the body upon well-cushioned pelvic bones fitted by nature for the purpose. Neither do I feel called upon to point out the inconvenience and suffering imposed upon a patient when the doctor orders him to take exercise with ordinary crutches, with the weight of his body suspended upon cross-heads in the axillæ, where he is also in constant danger of injury to the vessels and nerves contained within their boundaries. These are obvious to you all without further mention. The saddle is of simple construction, and can be made very cheaply. I use a bit of steel plate cut to shape and bended into the general form of a saddle. A few holes are drilled in it to fasten the padding, and a little rivet on each corner, with a protruding head like a button, to fasten the suspenders to. The straps and hooks can be made of any material that is strong enough to carry the body and to suit the pocket or taste of the wearer. I use the boot-strap webbing one inch wide, with button hole on one end and a buckle near the other end, so that they may be shortened or lengthened at pleasure. Leather straps answer the purpose. The hooks can be made of thick wire bended to suit. I use thin steel plate cut to shape and bended as required.

FRACTURE OF RIBS.

The diagnosis, where one or more ribs are broken, I do not often find very difficult to make. The objective symptoms, as the patient stands before me, being quite sufficient, in a large majorityof cases, to lead to a correct conclusion. He exhibits more or less pleurosthotonos, with restrained movement on the injured side. Then there is more or less embarrassment of respiration. Often there is a tendency to slight but frequently recurring cough. And while he tries to suppress every movement, he finds this impossible. And it is evident that every unusually violent expiratory effort is attended by very acute suffering. This, we may conclude, is probably a case of fractured ribs, although it is still possible that a severe contusion might be accompanied by all these symptoms. His clothing is now gently removed. Inspection may or may not reveal any marked depression or bulging of any part of the thorax. The story of the injury is told. The part which received the full force of the blow is pointed out, and I now know pretty well what may have occurred to the ribs and also to the adjacent structures. But I desire to know what really has happened, and if fractures are present with resulting injury to the lung, pleura and other tissues and

Plate XI.

depression or bulging of fragments still persist, I desire to restore them to their original relations as quickly as may be and with the least possible addition to the sufferings of the patient consistent with the accomplishment of those objects. And if there are no fractures present, the course which I pursue will not be attended with any inconvenience. I generally succeed in proving my diagnosis without ever touching, even with my fingers, the affected parts. I subject him to a series of simple maneuvers which give him but little inconvenience, and which, in a few minutes, are attended by much relief of suffering, in most cases. If you look at Plate XI you will see that I raise his hands as high as possible over his head, retain them there a minute or two, then let them down gently, and repeat these movements a number of times. This gives the intercostal muscles an opportunity to draw upon the fragments in the direction of replacement, being assisted by the pressure from within of a whole thoraxful of viscera and fluid, while outside every fiber of the thoracic muscles work in harmony with the same end in view, namely, replacement. Next, while his arms are still extended as high as possible—and it is sometimes necessary to give him assistance to maintain this position—I take a three-inch roller bandage and wind it firmly round the chest, covering an inch or two above and below the seat of the injury and secure it in place with a pin. Now I let his arms down. Usually, by this time, especially if the ribs have been fractured, the relief of his suffering is very marked. This is the case to some extent even in a simple contusion, as the parts are put at rest. I now give him a seat, throw his coat over his shoulders, and leave him a little while. An adhesive plaster band is now prepared, and in a half hour or so I am ready to apply it. If my diagnosis was correct, he can now cough without much suffering, and he takes posture again as in Plate XI, while I remove the temporary roller. If the contusion has been severe I apply a belladonna plaster smoothly over the injured part. I then put on the adhesive band, and the dressing is complete, as shown in Plate XII. Now my diagnosis has been made with more or less satisfaction to myself. But the patient has been relieved, and is now hopeful again. And what does he care for a fine Latin diagnosis as he retires with grateful thanks upon his lips and a benediction in his heart.

In a few days he returns for inspection, and possibly readjustment of his bandage. The dressing should not be removed in less than four weeks.

FRACTURE OF LOWER END OF RADIUS, KNOWN AS COLLES FRACTURE.

The unsightly deformities at the wrist joint which result from improper treatment of this very common fracture, should make the surgeon very careful in his selection of the method by which he proposes to treat his case. The fact that he has followed a course which has been successful in the hands of distinguished members of the profession, will not justify him, in the eyes of his patient nor in a court of law, if his treatment should, unfortunately, result in a badly deformed arm, with greatly impaired function and constant and prolonged suffering. The method which has developed under my hands in the course of many years' practice, and having treated several hundred cases in my clinic in the out-door department of Bellevue Hospital, is very simple and inexpensive;

Plate XII.

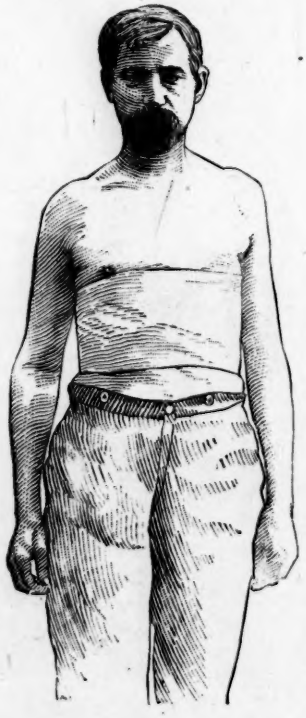

Plate VII.

and, better still, I have never had a single resulting deformity, nor a case of persistent impairment of function, where it was a simple fracture.

The diagnosis in this fracture is also easily made, often a glance of the practiced eye of the surgeon being sufficient to settle the question, without any manipulation of the injured member. And as the patient is most likely suffering quite enough already, I avoid as much as possible adding to his suffering by refinements of investigation, as my treatment will very likely be just the same whether the distal fragment be loose or impacted. If the accident has been of recent occurrence and there is but little swelling, the characteristic deformity is often quite apparent, and I seldom meet with much difficulty in making reduction by the method which I will now explain. I take a couple of yards of roller bandage, tie the ends together, making a loop; I lay the middle of the loop on the back of the hand; then crossing it in the palm, the patient grasps it with his fingers, as seen in Plate VII. I fasten the other end of the loop to a hook in the wall, a door-knob, or other convenient object. Now I set the patient on a chair sideways, and let him pull as much as he can; an assistant sometimes helps him to do this, as seen in the engraving. Thus extension is made, and usually the pain is much diminished in a few minutes. I however leave him seated thus for fifteen or twenty minutes, or until the muscles are quite tired and relaxed; then with my fingers and thumbs I carefully replace the fragment,

Plate VIII.

as in Plate VIII. When there is much swelling I use the vertical method of extension, for obvious reasons, Plates IX. A, X. A.

Plate IX. A

From this point the treatment is similar. My splints are very simple, made of thin wood a little wider than the arm, well padded with oakum or tow. I do not cover the padding as is generally done, as I find it easier to adapt them to the inequalities of surface without. The palmer splint reaches from the roots of the fingers to a little above the middle of the arm. I cut a place out for the ball of the thumb as it is not necessary to confine it with the splint. The dorsal splint reaches from the carpo-metacarpal articulation up to the same point on the arm as the other. When the splints have been nicely adjusted they are held in place by three strips of adhesive plaster an inch wide. I do not apply the plaster so tightly as to cause pain by pressure, as, if perfect coaptation has been effected, but little force is necessary to retain the distal fragment in position. But this is the point of the whole matter, reduction must be perfect or deformity will result, and the surgeon must not expect the splints to do by pressure what he has failed to do himself by careful manipulation when he could both see and feel what he was doing. I use no interosseous pads as they tend to spread the bones apart and thus increase the possibility of deformity, and besides there is no tendency to lateral displacement inwards.

I do not relax the extension until the dressing is completed. By that time generally the patient is pretty comfortable, and, with a piece of bandage for a sling, I let him go, directing him to return as soon as he feels that he should, so that I may tighten the

splints to follow the atrophy of the soft tissues. I very seldom require to readjust them otherwise.

FRACTURED CLAVICLE.

Plate XIII.

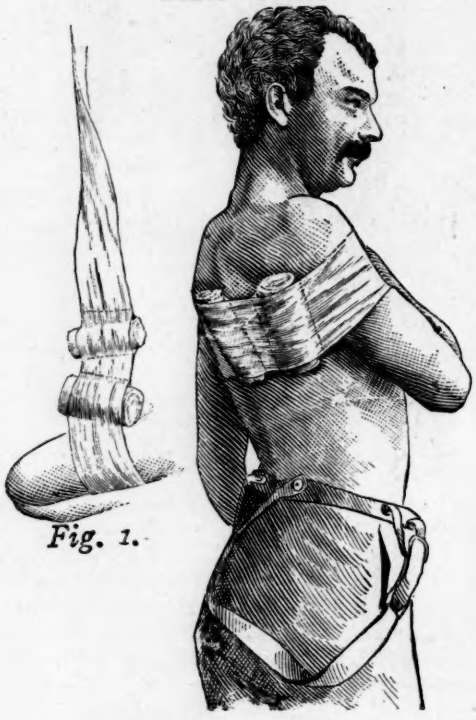

Fig. 1.

Plate XIV.

The diagnosis in this fracture is very simple. I think it unnecessary to say a word about it. When the clothing is removed we see that the arm droops downward and forward, and often the distal end of the sternal fragment is felt by the finger sharply defined under the soft tissues—often both fragments may be felt and crepitus may be easily produced by those who like such music. I do not and I never try to produce it until I have exhausted all other means of investigation. Now let us dress the case.

I recognized early in my practice the necessity of making the scapula as nearly as possible a fixture while treating a fractured clavicle, as the weight of the arm drags the acromial end downwards and the attached fragment of the clavicle goes with it, so that it requires some means of not only restoring the normal relations of the parts, but it is necessary to hold them in place during the entire period required for the reparative processes. And I think, gentlemen, that want of attention to this point will account for a very large proportion of the failures to cure this injury without deformity. I use an adhesive bandage, say four inches wide. One end of this is reflected upon itself, forming a long loop, Fig. 1. This bandage is long enough to encircle the body. I place a large roller-bandage in the loop, leaving room for the arm, and secure with pins. When ready to dress the case I slip the loop over the hand and up over the insertion of the deltoid muscle, and well up in the axilla, the roller being far enough from the arm to admit the fingers. It may even be placed against the outer border of the scapula, although that is not necessary, as there is not much tendency to displacement of this bone forwards. I now place a smaller roller, say one inch in diameter, in the loop opposite the inner border of the scapula, and corresponding to it in angle, and fasten it there, so that when the outer part of the adhesive bandage is brought to bear firmly upon and around the thorax, mischievous movements on the part of the bone are impossible. Before applying that part of the dressing permanently I raise the injured shoulder, keeping the elbow upon the lateral median line of the thorax, and secure this position by the adhesive bandage. I then take a strip of adhesive plaster, four inches wide, and long enough to reach. I cut a slit in it, placing a few folds of lint over the slit. That I place under the olecranon process, then carry the plaster up on the arm and and hand. Now I bring the arm forward in front of the body with some force as a lever. The loop bandage being the fulcrum, and thus the acromial fragment is forced outwards, and generally the bone will of itself resume its normal form and relations under this maneuver. My plaster is now carried over the shoulder of the sound side and the hand is thus secured firmly. The other end of this bandage is now carried up the dorsum of the arm and adheres to the opposite shoulder. Now the dressing is complete, although for the additional comfort of my patient, I usually cover this dressing with a nice roller bandage, applied over all. The advantages which I claim for this method are, first, I do not ligate the arm, as there is plenty of room left between the roller and the arm to prevent unpleasant embar-

rassment of the circulation, and, second, I secure immobility of the scapula, or nearly so, adding much to the chances of cure without deformity.

My dressing of this fracture looks not unlike that used by many other surgeons. But its true inwardness and essential differences are easily found on inspection. I have treated a very large number of cases of fractured clavicle by this method, and my results will compare favorably with those of any other surgeon within my knowledge. Other fractures I must leave for future opportunity.

EXSECTION OF BOTH HIP JOINTS FOR MORBUS COXARIUS.

BY WILLIAM A. BYRD, M.D., OF QUINCY, ILLINOIS.

[Read before the Surgical Section of the Am. Med. Association, June, 1883.)

Ever since the first suggestion of the removal of the head of the femur by Mr. Charles White, in 1769, for morbus coxarius, and the execution of it first by Schmalz, in 1816, as stated by Dr. Sayre, Anthony White, in 1822, as claimed by Barwell, there has been great diversity of opinion among surgeons in regard to the propriety of this operation, a few favoring, and many, condemning it as being entirely useless, claiming that even when it succeeded in saving the life of the patient, it left a miserably deformed being unable to walk without the aid of crutch or cane, and the chances of cure were no greater than if the patient was allowed to depend upon the slow process of spontaneous exfoliation of the diseased bone, a process which was rarely accomplished before the death of the patient. Opinions have greatly changed since the excisions have become numerous enough to compare with the older method. A condition brought about by various operators, and given a great impetus by Dr. L. A. Sayre, who claims the recovery of sixty-three out of seventy-two excisions of the joint. The gravity of a single excision having been considered so great, I presume but few surgeons thought there would be any propriety whatever in double excisions, though, of course, subjects requiring double excision present but seldom. I have found a record of but two cases of the kind, which you may find in the last edition of Dr. John Ashhurst, Jr's. "Surgery," p. 633. He writes: "I once had occasion to resort to excision of both hip-joints, the result (fig. 316) as regards life, was satisfactory, but the patient was not able to walk without crutches as long as he remained under my observation. A similar operation has since been performed by Mr. Croft." Now the case I have the honor to report to you is not only able to walk without crutches, but she goes up and down stairs very well without them, and attends school every day. When passing over rough ground she makes use of the crutches; traversing smooth places, without them. The accompanying photograph shows the appearance of the parts after the excision.

I will now read you a carefully written account of her condition previous to the excision, by Dr. Moses F. Bassett, a gentleman highly respected in our city:

"Susie Mahaffey, the subject of the following sketch, was born in Quincy, Ills., August 1st, 1873, of Irish parentage on both sides. At the time of her birth her father was aged sixty-five years and her mother thirty-one. The child has light complexion, pale blue eyes, flaxen hair and is of flabby texture; is of a bright, cheerful disposition, very fond of music and precocious, both physically and intellectually. She first came under my observation in February, 1876. She then had masses of enlarged lymphatic glands in the cervical and submaxilary regions, and the parotid gland of left side was suppurating profusely. She had been in this, or a similar condition, several months, and was markedly anæmic and suffering with hectic. Several irregular, and lately one regular physician had treated her with no apparent benefit. The last one had told her parents she had "King's evil," and was incurable. After a careful examination of the case, and by urgent solicitation, I undertook her treatment. I enjoined cleanliness, nutritious and abundant diet, exercise in the open air, by being drawn in a baby wagon, and gave alteratives and tonics, both mineral and vegetable, including potass. iodide. sulph quin. sassaparilla, stillingia, iron, etc.; also cod-liver oil; topically used salicylic, carbolic and benzoic acids, zinc and iodoform, and had the satisfaction of discharging her in about six months, with the abcesses healed, the enlarged and indurated glands reduced to normal size, nutrition good, getting quite fleshy, and with rosy cheeks.

From the autumn of 1876 I saw her occasionally, always looking bright and healthy, and was told by her family that she was perfectly well. More than five years afterward, on the night of March 15th, 1881, I was urgently summoned to see her, and was told she had been sick in bed with a continued fever for six weeks, under the care of one of her former physicians; that she was now in a dying condition, and the doctor in attendance had refused to treat her

longer, and said she could not recover. Found her temperature very high, with alternate rigors and sweats, and complaining of intense pain in right hip and leg. On inspection, a large quantity of pus was discovered surrounding the femur from hip to knee. This I at once evacuated, by a free incision on the outer aspect of the limb. The exhaustion following this procedure was extreme, but she finally rallied under stimulation, and slowly improved. My efforts were chiefly directed towards recuperating her sufficiently to enable her to endure the necessary operation for the removal of the necrosed bone, but not till April 27th, 1881, did I dare submit her to that ordeal. On that day my friend, Dr. W. A. Byrd, made his first operation, supplemented by a second in the following October, the particulars of which he will detail, and I leave the further history of the case to him, with the concluding remark that in more than forty years of active medical and surgical practice I have never seen results more happy and unexpected. M. F. BASSETT, M.D."

April 27th, 1881, with the assistance of Drs. Bassett and G. W. Connell, now of Johnson, Nebraska, I proceded to remove the head and upper part of the right femur. I commenced the incision two inches above the great trochanter and continued it downwards, curving it so as to pass behind the great trochanter, ending five inches below its origin. The soft parts were pulled aside and detached carefully with the periosteum, from the bone with a dental scraper—an instrument that I have of late used entirely for that purpose, an operation easily effected. The head of the bone was thrown out through the opening, and on account of the softened condition of the bone it was divided just below the trochanter major with pliers. There being an abscess over the greater trochanter of the left limb, it was freely laid open and the trochanter removed with the pliers, there appearing to be no other portion of the bone diseased. Both wounds were dressed with balsam Peru and oakum, and the child placed in one of Dr. W. P. Verity's (of Chicago) splints—a splint that I have used with excellent results in similar cases, in fact all the cases I operated upon or assisted to operate upon before using that splint died, and none have died since, but I expect one to do so that I removed the hip-joint for in the fall of 1881. She persisted in being placed face downwards in the splint, which was no disadvantage, as it tended to keep the limbs straighter. Under Dr. Bassett's immediate attention, seeing her myself occasionally, the right limb progressed favorably but the left one did not do so well.

October 10, 1881, a little over five months after the first operation, with the assistance of Drs. Bassett, Connell, and two other physicians whose names I have forgotten, I cut down on the head of the left femur as in the former operation, and removed the bone just below the trochanter minor with the pliers, and dressed the wound as before. Constitutional treatment was carefully attended to, and she received excellent nursing. From this time, her recovery was very rapid, she gained flesh, and the wound healed readily.

Now I wish to call your attention to the time supervening between the attacks and the excision of the first joint. Dr. Bassett says that he was first called to see her, for her hip trouble, March 15th, 1881, six weeks after pain had commenced. Suppuration had already freely occured. He released the pus, and the disease progressing, I removed the bone April 27th, following, a period of about eleven weeks. The other bone was left with only the greater trochanter clipped off until October 10th, a little over five months. Although she has done so well I believe she would have done better had it been removed at the same time. Most authors deprecate the use of the pliers in removing the bone in such cases, in which view I believe they are generally correct, but in this case the bone was so soft that I did not anticipate splintering.

Again I desire to call your attention to a splint that I have found so useful, first brought to my notice by Dr. Chas. T. Parkes, of Chicago, but the inventor is here and I shall ask him to show it with its application to you. Before using it, I was interested in three cases, all dying; since, in four, of which three have recovered. Many of these cases I believe originate in a tubercular condition of the bone, as so ably described by my friend Dr. N. Senn, in his report on pathology to the Wisconsin State Society, in 1883. These cases, when the disease is only in the bone and there is synovial effusion from irritation, are those, I think, cured by Mr. Macnamara, of Westminster Hospital, London, by boring with a drill a hole directly into the joint from the outer side of the trochanter major, thus permitting exit to the morbid material in the bone and relieving tension within the joint.

JUNE 7TH, 1883.

AN APPLIANCE ADAPTED TO OCCASIONAL GYNÆCIC AND OBSTETRIC EMERGENCIES.

BY HENRY A. MARTIN, M.D., OF MASSACHUSETTS.

[Read to the Section on Obstetrics and Diseases of Women, June, 1883.]

I have always thought that his gift, thrown into the treasury of the Temple of Medicine, ought not to be despised, who brought some newer and really better way than had been before devised for the relief, assuagement, or sometimes, happily, complete removal and cure of any, even the simplest, rarest, least important of the multifarious, the myriad developments and complications of disease which sow the way of our life with pitfalls innumerable, with pain and anguish and death.

I bring you a very simple matter, one not worth calling an invention. A very broad (9 inches) thin bandage of what is technically known as "pure rubber," a preparation of the very finest grade of extra Para India-rubber and the extreme minimum of pure sublimated sulphur necessary, with heat, to accomplishing the process of "curing" or "vulcanization." This bandage has been found, by others as well as myself, of great and unexpected value, now and then.

About four years since, I was asked by my friend and old fellow-student, Dr. J. S. Flint, to visit a patient of his. In all respects but one she was healthy and able, but that kept her anchored in her bed.

Several fibroid tumors were attached to the body and fundus uteri. As a consequence, whenever the patient assumed the erect position, the fundus uteri, enlarged not only by the fibroids attached to it, but by its own hypertrophy, was thrown against the extremely sensitive anterior peritonæal wall of the abdomen, producing at one point, where the tumor was most prominent, extreme, indeed quite intolerable, pain. On the "broad of her back" she was comfortable, and in no other position. All the usual varieties of abdominal bandage, supporter, swathe, etc. etc., had been tried, but found useless, increasing rather than diminishing the trouble. It occurred to me that a simple thin band of pure rubber, wide enough to cover the entire abdominal surface, and applied closely and *immediately* to the skin, without any intervening application whatever, might be borne and afford relief. I procured such a bandage. The result far more than justified my hopes. From its first application the pure rubber bandage made the patient quite comfortable, even while in the standing position. In a few days she resumed her profession of seamstress. A favorite in many good families, for fifteen months she continued to earn her living, and, to a very considerable degree, to enjoy the life she earned. At the end of that time, the tumors had so increased in size, and this increase was so complicated by hæmorrhage and other familiar symptoms, as to necessitate repose for the two or three remaining months of her existence.

During the past four years several of my friends, as well as myself, have repeatedly employed this thin wide bandage of pure rubber, and, in almost all cases in which it was judged that it might be useful, it has proved to be so, often extremely useful. I need hardly enumerate the cases in which it has proved, and may be reasonably expected to prove, more useful than any other appliance. Its perfect closeness of application to the skin, by which it becomes practically, as it were, a part of the anterior abdominal parieties, and its perfect elasticity, render it a means of great relief and comfort, not only when the gravid, subinvoluted or otherwise enlarged, uterus is thrown forward against the peritonæal wall; when tumors have the same effect, in some cases, particularly in multipara, in which the redundant and forward projecting abdomen is not only a source of chagrin but of suffering, the pure rubber abdominal bandgage has been found most useful, but also in some cases in which the uterus, though not enlarged but antesected or anteflexed, has been the source of infinite annoyance, this bandage has effected relief when all previous appliances had been of little or no utility. It is not only, however, in cases in which abdominal tumors or uterine displacements are the sources of pain and uncomfortable symptoms, but in many cases in which the abdomen was sensitive on pressure, some in which peritonitis was, doubtless incorrectly, suspected, and after labor, the bandage has been found not only a source of relief but even, it has been thought, an important means of protection from danger, in the peculiar form of pressure it exercised on a uterus prone to relaxation and dangerous hæmorrhage, or threatened, with its appendages, by inflammatory trouble. It is not only by its close application and wonderful, quite unequaled, resilient elasticity, but also by the perfect retention within it of the natural heat and of the increased fluid secretions of the skin, rendering it, after half an hour's application, a perfect poultice, stupe or fomentation; not one efficient to a certain degree, but heavy, filthy, offensive, incapable of being applied to all parts of the joint and sides of the abdomen, and probably pouring forth a perfect flood and tempest of those fearful germs which haunt the night-mares of so many of our brethern, but a poultice or fomentation affording support and comfort and protection from danger by its perfect elastic resilience and pressure of a sort which relieves, while every other pressure is utterly unbearable and out of the question. This bandage is admirably adapted to certain of those cases so fertile of misery to the patient during pregnancy; of protracted dragging, tedious delay, and misery to both patient and attendant, when labor comes on, and, indeed, then not entirely free from danger to the former. The cases I mean in which the gravid uterus is strongly, and, as pregnancy advances, more and more anteverted and more and more a source of fatigue and wretchedness.

I have occasionally inserted a soft pad of old worn towel or worn flannels, of folded old linen or lint between the bandage and the skin at the point at which it seemed desirable to increase backward pressure, but lately I have found this to be quite needless, and, in some cases, the local pressure adds to the patient's discomfort. The peculiar active living pursuing pressure of a pure rubber bandage, properly applied, dispenses with what I at first thought to be advisable.

Another obstetric and gynæcic use of this broad elastic bandage is in the treatment of adenoid tumors, and of the early stage, at any rate, of inflammatory tumors of the female breast—an application of the principle of immediate elastic pressure which the profession owes to a very distinguished associate of ours (Dr. Bontacou, of Troy, N. Y.). Having long relinquished all but consulting midwifery practice, I have had but little experience in this employment of the pure rubber bandage, but still quite enough to convince me of its value, and I have found the very broad bandage incomparably more efficient for this purpose than those of ordinary width. As my hearers, though gynæcologists for the nonce, are, *Laus Deo*, mostly general practitioners also, I may venture to merely mention here the great use and convenience of this bandage in certain thoracic cases. As a substitute for the "jacket poultice," in pneumonia, pleuritis, contusions, etc. As a substitute for the ordinary roller bandage, and infinitely preferable to it, in fracture of ribs, in pleuritic effusion, both before and after thoracentesis, it is also a very convenient thing during and after the operation of paracentesis abdominis. During the operation it may be pretty snugly applied above the place of puncture, or, with a good deal of pressure, around the abdomen before the operation, the puncture to be made through the bandage. In two or three cases of extreme umbilical hernia it has been found very useful. In these last cases the bandage should be of greater

thickness than for many other cases. For most cases a length of 5 feet and a thickness of 28 (Stub's wire guage), but for bad cases of ventral hernia a thickness of 22, or even 20 of the same standard is advised, and a length of 6, or even 7 feet.

All the applications I have mentioned have been repeatedly made, and found useful in actual practice. Others have been suggested to my mind, such as, in certain cases, after the removal of large abdominal tumors, etc., etc.; but my object is to give you the actual results of my experience—not mere suggestions and surmises.

The principle on which the bandage is used is so simple—the indications for its use so plain and evident after the principle, and the perfection with which the bandage meets the requirements are understood—that I need say no more on that point, but as all are far wiser than any one can be, I do not doubt that you will discover all the uses of such a bandage that might suggest themselves to myself and many more besides.

Let it be distinctly understood that I recommend this abdominal bandage of pure rubber as an appliance to certain peculiar emergencies, but by no means for general use; for many, indeed for most cases, one of the usual forms of abdominal belt, or supporter, is undoubtedly preferable. The very quality of any close application to the skin, exclusive of air and inclusive of animal heat, and of the increased fluid secretions of the sudoriparous and sebaceous glands, which render the pure rubber bandage of great and peculiar value in certain cases, would render it very objectionable to a far greater number of cases in which pain and threatenings of inflammation are not present.

Nothing can well be simpler than the construction of this appliance. A bandage merely, just like those I recommend for the limbs except in being much broader, with three sets of tapes instead of only one, and in having a very slender strip of whalebone inserted in the tapes, and to prevent the wrinkling up of the bandage from motion of the body. Even with this provision, it is liable to roll up on the sides. This tendency might be obviated by inserting several slender strips of whalebone at intervals in the length of the bandage; but this would deprive it of the very important quality of perfect and equally diffused resilient elasticity, and for other reasons would defeat the peculiar end of the bandage. I provide a patient with four of the little contrivances devised for attachment to skirt supporters and certain sorts of garters, etc.—an excellent and almost costless substitute, by the way, for the same price. One of these catches is to be sewed to each of the ends of two tapes, or soft silk or cotton cords of proper length, by passing these between the thighs and attaching the catches to the bandage after it is applied, its rolling up may be prevented.

If these bandages come to be an article of commerce, such tapes, or cords and catches, would of course be supplied with them.

It may be worth saying, before concluding, that the present form of band was, on the whole, found to be the best. I devised and tested several other contrivances, all more elaborate than this. I need not trouble you with anything about them, as all were found to be open to objections from which this is free. At first I made them thicker than I now prefer. Now and then, however, in cases of bad ventral hernia, unusually pendulous abdomen, certain peculiarly projecting tumors, etc., etc., a bandage of the thickest sort (No. 20 Stub's guage) and of the greatest length (7½ feet) that I ever use is to be preferred to the bandage of No. 28 Stub's guage, and 4½ to 5 feet, which I much prefer in a very large majority of cases.

NOTE.—After the meeting of this Association at Chicago in 1877, on which occasion I first publicly announced some of the results of nearly twenty-five years' experience and study of the method of immediate elastic compression by means of the pure rubber, or, as it is since very generally called both in Europe and this country, "*Martin Bandage*" (an article now manufactured by scores of manufacturers, and sold by tens, probably hundreds of thousands annually), I received many inquiries for bandages.

I went to two prominent and very well known dealers in Boston, and offered each of them successively, gratis, all that might be gained by their manufacture and sale. When told that as small a stock as the manufacturer would take in hand would cost about $200, both declined; one candidly saying he "saw no money in the thing," the other, more politely, but more circuitously and tediously, said the same thing.

I had to engage in the manufacture myself or disappoint my correspondents. Since that time I continue it, mainly for this very important reason, that the manufacturers, although they reap enormous profits from my suggestion and invention gratis, for the most part make the bandages so vilely, of such poor and perishable and irritating material, as to do my personal reputation and the reputation of this method of treatment the greatest possible injury. Every counterfeit is called a "Martin bandage," and I am held to responsibility for its abominable, rascally, fraudulent worthlessness.

I shall certainly not again ask any dealer to do me the great favor of enriching himself by making anything of my suggestion. If, however, any of my hearers or readers should wish to try the broad bandage of pure rubber before it becomes a general article of commerce, and will write to me, I will gladly supply them with bandages of any length from 4½ feet to 7½ feet, of either of the four grades of thickness 20, 22, 24, 28 of Stub's wire gauge, and at a price, according to weight and degree of thickness, of from $2 to $3.50), and will exchange till the correspondent obtains just what he needs.

OWING to the removal of Dr. Theophilus Parvin from Indianapolis to Philadelphia, he has laid down his editorial pen. The readers of the *American Practitioner*, with which he has been so long connected, will miss his name and hand in the journal. Dr. Octerlony, of Louisville, succeeds to Dr. Parvin's editorial duties, as well as to his former position in the University of Louisville.

WHAT MEANS CAN BE JUDICIOUSLY USED TO SHORTEN THE TERMAND LESSEN THE PAINS OF LABOR.

BY JNO. MORRIS, M.D., BALTIMORE, MD.

[Read in the Section of Obstetrics and Diseases of Women, June, 1883.]

During the discussion of this paper Dr. H. C. Ghent, of Texas, said: "I have listened with much interest to the reading of this paper. It relates to one of the most interesting and important subjects that can possibly engage the time and attention of the obstetrician. I have been astonished and disappointed. The question asked by the author is a double one, viz.: 1st, shorten the term; 2nd, lessen the pains of labor. Astonished that chloroform was not even named as an anæsthetic agent. During the first years of my practice I refrained from the use of chloroform or any other anæsthetic in obstetric practice, being prejudiced against it by the teachings of the immortal Chas. D. Meigs; but for the past fifteen years I have been in the constant habit of exhibiting chloroform for the purpose of obtunding or abrogating the painful sensations of parturition, and, I am pleased to say, with the most gratifying results. I use it *intermittently*, during the *second stage*. Never carry the effects to the full loss of consciousness, unless I fear laceration of perinæum or other soft structures, in which event I do not hesitate to give it to a surgical degree. Exceptionally, I give it during the first stage, when the woman suffers much and the os dilates very slowly. Have never had a case of post-partum hæmorrhage since I began the use of chloroform. If I apprehend the least danger from this source, I always give ergot *about* the termination of the second or the beginning of the third stage. With one hand upon the hypogastric region, to *grasp* the womb and the other *within* the organ, to excite *tonic* contractions, I do not think there can be much danger from post-partum hemorrhage.

No serious laceration of perinæum has occurred since I began the use of chloroform in this branch of practice. I know, however, that lacerations do occur in the hands of the best, the wisest and the most enlightened obstetricians; still, I am of the opinion they would much less frequently occur if chloroform was used efficiently and judiciously.

Ergot is a power for good or evil, depending upon the state and stage of the labor. I never give it during the second stage, but confine its use to the third. As before remarked, I have given it just before the completion of the second stage, when I apprehended hæmorrhage, but never soon enough for the ergot to exercise any deleterious influence on the child. Wisely used, there are few medicinal agents within the wide scope of the Materia Medica that surpass chloroform and ergot.

REPORT OF TWO CASES OF CATHETERS, BROKEN OFF IN THE PROSTATIC PORTION OF THE URETHRA, REMOVED BY THE USE OF A NEW INSTRUMENT.

BY ABNER HARD, M.D., AURORA, ILL.

In the winter or spring of 1881 a Norwegian between 60 and 70 years of age, who had been in the habit of using a catheter in consequence of enlarged prostrate gland, was brought to my office, having broken the catheter in the prostatic portion of the urethra. I could not feel the catheter by external manipulation, but by passing a sound into the urethra, I discovered the end of the broken catheter in the position indicated. The catheter was what is known as a gum, or soft catheter, No. 7. Not having seen or known of such an occurrence, I confess I was at a loss as to what course to pursue. There was danger of pushing the fragment into the bladder, and I possessed no instrument constructed to meet such an emergency. It is said "necessity is the mother of invention," and calling upon my inventive powers, I took a large, straight steel wire and had a tapering screw cut on one end. Then took a common gum elastic catheter, and after cutting off the end containing the eye, used it as a sheath for my wire screw. This I oiled and passed into the urethra until it came in contact with the fragment of the catheter. Then carefully turning the wire, with gentle pressure, attempted to screw it into the open end of the broken catheter. My rude instrument was too blunt to readily enter, but after repeated attempts it entered sufficiently to admit of making traction. I withdrew the catheter about an inch, when it broke, allowing me to remove about an inch of the broken instrument. Again introducing the screw, after another prolonged attempt my efforts were crowned with success by the withdrawal of the remaining portion. The fragments removed were five or six inches long. I was assisted by Dr. White, of Steward, Ill., who brought the patient to me.

The second case occured October 6, 1882. This time I was called, in the night, twenty-eight miles from home. The telegram informed me of the nature of the case, and, armed with my screw, I responded. The patient was passed sixty years of age. The accident had occured under similar circumstances to the former, but the catheter was smaller, being No. 5. Assisted by Dr. George M. Macklin, of Waterman, Ill., I proceeded as in the former case, laboring under the additional difficulty of having a smaller orifice in the fragment to be removed. We finally succeeded, as in the first case. A portion of the catheter broke in the removal, making the operation both difficult and tedious. However, both operations were performed without injury to the patients.

Since having the foregoing experience, I have been impressed with the idea that, as soft catheters have come into such general use, accidents of this kind may become more frequent, and some better means of extraction than we have heretofore possessed is needed. I therefore had E. H. Sargent & Co., of Chicago, Ill., make me an instrument—an improvement on my wire screw. It is a metal rod, with a tapering screw, the screw being sharply pointed with sharp and deep thread, and a silver sheath armed with a plug to fill the distal end, and therefore as easily introduced as an ordinary silver catheter. When introduced the plug is withdrawn, and the screw inserted in its place. The surgeon is to manipulate the instrument so as to keep the end containing the screw

in contact with the open end of the fragment of the catheter to be extracted, changing the direction, if necessary, while an assistant gently turns the screw. When the screw enters sufficiently to admit of traction, the fragment is to be carefully withdrawn with the instrument. Since reporting these cases to our local Society, I have read in the *New York Medical Record* of April 7, 1883, the report of a case by Surgeon J. A. Wyeth to the New York Pathological Society, of an English gum catheter lost in the uretha. In that case Surgeon Wyeth attempted the removal with several different instruments, but it slipped into the bladder. He then removed it by the aid of a lithotrite. He had the advantage of the patient's being nearly paralpzed, so that he suffered little if any pain during the operation.

I respectfully offer the foregoing description, of what I think is a new instrument, to the profession, trusting that it may assist some of our brethren in an emergency, as it did me.

THE USE OF THE TREPHINE IN CHRONIC PLEURITIS.

BY J. M. G. CARTER, A.M., M.D., WAUKEGAN, ILL.

The treatment of chronic pleuritis with suppuration was very unsatisfactory, and the patients generally died with exhaustion which was termed consumption, until modern surgery offered means of relief. For many years after surgeons ventured to perform paracenticis thoracis for the relief of this class of cases, it was considered absolutely necessary that no air be allowed to enter the pleural cavity, and the ingenuity of the profession was taxed to devise instruments which would entirely exclude this agent. And even after bolder operations were undertaken it was deemed unadvisable to allow air to enter the opening. It is now known that the entrance of air into the pleural cavity may be attended by no unpleasant results.

The operation which it is the object of this article to describe, has been slowly developed during the last quarter of a century. All the cases recorded, as far as I am aware, have been traumatic and associated with a fistulous opening; indeed, very few cases have been reported. The present case is in the practice of Dr. O. T. Maxon, of Waukegan, and was not seen by the writer until the day of the operation.

G. S., a street car conductor, æt. 25, "took cold" in April, 1882. He had a troublesome cough, but continued at work until June 27. While lifting a car he felt a severe pain in the back, which compelled him to stop work. He lay off two months on account of lame back and during that time was treated for inflammation of the kidney. Having recovered from the lameness in the back he returned to his work and remained at his post until about September 10, notwithstanding his cough gave him considerable annoyance. At that date, in attempting to jump from his own to a passing car, he struck his side (at the seat of the abcess) on a car seat. During all these weeks, however, the pain in the back had not entirely subsided, and he was rather feeble, but had a fair appetite.

The injury compelled him to leave his worR again, and it was two weeks before it was considered well, and he returned to work. In about a month the pain in the back, in the lumbar region, and the cough became more troublesome, and November 3, 1882, he was forced to leave his car. He had already been suffering from night sweats some two weeks. He was unable to do anything, and a part of the time confined to his bed until December 1. On that day he began work again, but after half a day's effort he was compelled to leave his car and went to bed.

He came under the care of Dr. Maxon, December 23, 1883, at which time the patient said he had had a troublesome cough for a month or more with night sweats. Most of the time his appetite had been poor, but at times it was good. He complained of pain in the right pleura. Pulse 120 and temperature 103 (Fah.) Prescribed quinine and opiates. The pain and night sweats continued about the same for the next month, the temperature ranging from 100° 105°. There were sixteen to thirty-two ounces of muco-purulent sputa expectorated in the twenty-four hours. Quinine and iron were freely given, but the patient received little if any benefit from the treatment. Other remedies were used, but the case seemed to be beyond the reach of medicine, and the doctor determined to resort to surgery.

February 11, 1883, an opening was made into the pleural cavity between the fifth and sixth ribs. A large pus sac was entered, which discharged about one pint of fœtid pus. The sac was then washed out by the injection of a one per cent. solution of carbolic acid. This solution was freely expectorated by the patient. During the next ten days there was little or no cough, the temperature became normal, and the patient reported that he could "eat like a railroad hand." He slept much better. As the wound began to heal, his symptoms grew worse, and it was necessary to dilate the opening. At first this was done by introducing rolls of linen. Cough became worse gradually, and it became evident that this method of procedure was not sufficient to keep up the discharge. The cough, night-sweats, pleural pain and other symptoms were as bad as ever by March 20. As the discharge was practically stopped at this time, the opening was enlarged by incision. The operation was performed with difficulty, from the fact, chiefly, that the sac was not adherent to the thoracic wall. The discharge of pus was considerable, and was kept up with great relief to the cough, until May 1. After that date no flow could be obtained, even by dilatation of the opening, and patient and friends alike feared the further use of the knife. Tonics and anodynes were administered during the following three months, but the patient steadily and gradually failed, growing weaker and more emaciated. During these three months he was not able to lie down, on account ef the distressed breathing and harassing cough which the reclining posture caused. He expectorated about 32 ounces of pus in each 24 hours. His appetite was almost entirely destroyed by the nausea which was caused by the offensive odor of the sputa. The patient seemed to be slowly dying, and as a last hope, it was advised that he should be operated upon again,

with the hope that a free opening might be secured for the discharge of the abscess, and to facilitate the necessary local treatment.

Accordingly, preparations were made for trephining the thorax, and Aug. 8, 1883, was selected as the day for operating. The condition of the patient was such that it was an hour after reaching the house before the operation could be commenced. The pulse was 120, and the temperature a little above normal, the cheeks flushed, the patient weak and much emaciated, and the cough so distressing that it was necessary to give ether to quiet it sufficiently to allow surgical interference. At 11 A. M., the patient sitting in a rocking-chair, the administration of ether began, but it was 11:15 before he was sufficiently under the influence of the anæsthetic to bear the knife.

With a scalpel, an incision three inches long was made along the superior edge of the sixth rib. The periosteum was removed and the trephine applied. An inch and a half of the bone was cut away, except about one quarter of the rib on its inferior edge, which was left as a support to the chest wall. The scalpel was then used to cut through a layer of earthy deposit ¾ of an inch thick, between the wall and the pus sac. This deposit was so hard as to break the edge of the knife, and leave it almost as rough as a saw. When the pus sac was reached, a very offensive discharge began, which flowed more freely after the injection of a one per cent. solution of carbolic acid. About two pints of this offensive pus were discharged before the wound was dressed. Carbolic acid water, of the strength of one per cent., was freely injected, one of Dr. Edmund Andrews' drainage tubes was inserted, and the patient was given gr. ¼ of morphine to produce rest. The dressing consisted of a simple bandage, over carbolized cloths. During the dressing, the patient had one spell of coughing, which distressed him very much. The air was drawn through the opening in the side, and when he coughed, the pus was thrown out to the distance of several inches.

After the operation was completed, and the dressing applied, as the patient came out from under the influence of the anæsthetic, it was seen that he was very weak. In a few hours he rallied, however, and during the afternoon walked across the room. After the dressing was applied, he ceased coughing, and has not had a recurrence of it since. He was given tonics and anodynes, the latter of which have been constantly and gradually diminished. His appetite has steadily improved, he has no distressed breathing, and sleeps well in the reclining posture, which he had not done for three months previous to the operation. The discharge still continues, but is not so offensive, and is less in quantity. The pulse and temperature are about normal.

The operation occupied an hour, and it will be observed that no special antiseptic precautions were taken, further than carbolizing the instruments and sponges. The offensiveness of the pus can scarcely be imagined. The odor was such as to nauseate the attendants, and almost drive them from the room; and it so permeated the air that the smell was strongly perceptible in the yard.

It is evident from this, and similar operations by other surgeons, that the introduction of air into the thorax through an opening in the parieties is not greatly to be feared under these circumstances.

P. S. Aug. 23.—The patient rode out in his buggy yesterday, and to-day came to the office, a distance of four miles, and walked upstairs (25 steps) with very little fatigue. He took dinner with Dr. Maxson, and ate very heartily. His pulse and temperature are normal.

It is now just two weeks since the operation. He does not cough, and has had no return of the hæmorrhage from the lungs which was so profuse the day before the operation was performed (expectorated ½ to one pint of blood). The cavity, which held a quart of water two weeks ago, now will admit only eight ounces. The drainage tube was removed and shortened two inches, the result of which was the relief of a sensation of pressure and slight pain under the right shoulder. The sensation of lack of air in the right lumg—the affected side—has disappeared, and he breathes naturally. He walks about the yard and premises, and rides whenever he desires. His appearance is very much improved, and all the indications are that the cure is radical.

MEDICAL PROGRESS.

STEWED FRUIT FOR THE GOUTY AND THE DYSPEPTIC.—Dr. J. Milner Fothergill, in the *Lancet* for July 7, recognizes that for many persons, gouty, dyspeptic, and glycosuric, ordinary stewed fruit is objectionable from the amount of added sugar it contains. But it is by no means necessary to render stewed fruit objectionable by adding much sugar to it. Deprived of this excess of added sugar, stewed fruit can not only be rendered unobjectionable, but be converted into an actual prophylactic measure, especially in cases of lithiasis. In order to attain this end all that need be done is to neutralize the excessive acidity by an alkali, and then little or no sugar is required. Dr. Fothergill experimented in this way, through his cook, on all the ordinary native fruits, and found that for each pound of fruit as much bicarbonate of potash as would lie upon a shilling (quarter) was all that was necessary. With all fairly ripe fruit this was just sufficient to neutralize the acidity and bring out the natural sweetness; indeed the resultant product was quite sweet enough for most adult palates. Such stewed fruit could be eaten alone, or with milk puddings, or with cream, or the Swiss milk in bottles. Gooseberries, currants of all kinds, apples, and plums, all alike were excellent when so prepared. With dark fruits, however, as the black plum, the color is impaired by the alkali; a little cochineal will remedy this. Where there is no natural sweetness to neutralize the acid completely by, an alkali leaves nothing, simply a cold mass, to which the palate is absolutely indifferent. Such is the case with rhubarb. Here it is well to use half or all the amount of alkali with some sugar. The same is the case with early gooseberries before they have any natural sweetness. Here the full quantity of

alkali should be used, and the remaining acidity met by sugar. Where three-quarters of a pound of sugar is required to sweeten one pound of fruit, only one-quarter of a pound of sugar is necessary after the alkali has been added. The sour-sweet taste is thus secured, which is toothsome. Fruits *en naturel* as the strawberry for instance—are good in gout from the salts they contain, and are unobjectionable stewed, if it were not for the acetous fermentation ot the added sugar. Here soda may be used. But where there is lithiasis the alkali ought to be potash. The gouty and the bilious alike are troubled with the products of the metamorphosis of albuminoids. Neither the lithates of the gouty nor the bile acids of the bilious are derived from the saccharine or farinaceous elements of the food. Milk puddings and stewed fruit are excellent for the dyspeptic, the bilious, and the gouty, and for one of those who suffer from taking sugar, nineteen would be all the better for stewed fruit. It does not seem a matter of indifference in lithiasis what forms of albuminoids are taken. The flesh of animals is rather converted into peptones by pepsin in an acid medium—that is, by gastric digestion,—than by trypsin in an alkaline medium. And such peptones seem specially liable to form lithates. Caseine is more specially digested by trypsin in the intestine, and such caseine peptones seem less readily converted into lithates. Caseine is the form of albuminoids, it seems to me, best suited to the gouty. Both for the classical diabetic and the glycosuric, cane sugar—the sugar of commerce—is bad, producing the unpleasant symptoms of sugar in the blood very readily. Yet many glycosuric individuals can take farinaceous matter with comparative immunity from discomfort. Starch in its way to grape-sugar is much less troublesome than is cane sugar passing into grape sugar—why I do not know, but the fact remains. Fruit stewed in the manner here advocated saves the gastric acidity from the acetous fermentation of the sugar in the dyspeptic, or with the glycosuric relieves him from the excess of cane sugar which disagrees with him. Where there is distinct gout, if stewed fruit be prepared with the bi-carbonate of potash, it is converted into a therapeutic agent of no mean value.

A CASE OF BEAD-SWALLOWING.—The *Lancet* for July 7 gives us a case where a child of 18 months swallowed and then passed with the fœces 70 glass beads, hexagonal-sided, measuring each about three-tenths to one-fourth of an inch in length, and about two-tenths of an inch in diameter. The edges of the beads were sharp and ragged. Also an ordinary horn coat-button, three-quarters of an inch in diameter. No bad symptoms showed themselves, no medicine was given, and it took the child three days to dispose of them comfortably. There were none of those symptoms noted, so minutely detailed in a somewhat similar case, by Jack Hopkins, for Mr. Pickwick's benefit.

MYCETOMA OF THE FOOT.—This interesting condition, as given by a case recorded by Surgeon-Major G. Bainbridge, in the Trans. Med. and Physical Soc. of Bombay, No. 11, New Series, shows that this fungous growth may infect the whole system. Another fungus disease has been described by Dr. E. Parpek, in his pamphlet, "The Actinomycosis of Man," but the two forms are not closely alike.

The disease occurred in a native in government employ, aged 22 years, and dated back eleven years, when the bare foot was injured while walking, resulting in swelling, and the discharge of blood and pus from an opening in the left foot near the metatarso-phalangeal articulation, which healed in a month's time. Three years later the wound re-opened, and discharged as before, with the addition of white grains in the discharge. Since then the limb has never been well, and during the past year and a half the disease has advanced rapidly. At present, the left foot is considerably enlarged, and has fifteen orifices or sinuses, and cicatrices of former openings on its surface; they are limited to the tarsus and metatarsus, the phalanges being sound. At the inner side of the calf of the leg, between the upper and middle third, is a tumor of an elongated ovoid, or fusiform shape, lying free beneath the skin, of softish, elastic consistence, painless, and presenting no signs of an inflammatory state. Superficial inguinal glands are much enlarged, tender, and orifices in their neighborhood discharge bloody pus in quantity, with the roe-like particles. Tumor in the left calf was excised, and proved to be a cyst with a rather firm fibrous wall, from ⅛ to ¼ inch thick, containing a synovia-like fluid and numerous yellowish-white, fish-ova-like particles, characteristic of the pale variety of mycetoma. The cyst was composed of very compact fibrous tissue, containing in its meshes a considerable number of fat globules, and the contained processes and roe-like bodies consisted of an extremely delicate fibrillo-membranous basis, containing in its meshes minute spherical cells and very numerous oil-globules. The fibrillar structure had a radiated arrangement around numerous centers, so that the whole seemed to consist of concentric spheres of varying density, composed of radiating fibrillation, cells, and fat globules. The growth measured about 2½ inches by 1½.

OVARIOTOMY IN A GIRL OF EIGHT AND A HALF YEARS OF AGE.—Dr. Duchamp, in *La Loire Médicale*, July 15, describes a successful operation performed after anæsthetizing the child while asleep, and resulting in the removal of the left ovary with the greater portion of the fallopian tube. The operation took three hours for its performance, and perfect relief was the result.

SPONGE GRAFTING. — Surgeon-Major T. Cody, Trans. Bombay Medical and Physical Society, of Bombay, No. 11 new series, has had occasion to use this method in a case of carbuncle where, after the slough had detached itself, an excavation was left two and a half inches long by two broad, and varying in depth from a quarter of an inch in parts to an inch in others. The carbolized sponge was fitted almost exactly in the parts. To retain it in close apposition three silver wire sutures were applied. In four days'

time the sponge was firmly imbedded or grafted on the surface, so the sutures were removed. Repeated carbolized washings and dressings were employed with removal by the scissors of such parts of the sponge as projected, from time to time, until in six weeks' time the patient left the hospital with the surface completely healed over, and without the slightest puckering or depression to be seen in the cicatrix.

EXCESSIVE SWEATING OF THE HANDS AND FEET.—In the September number of the American edition of the London *Lancet*, Dr. Frederick H. Anderson directs the sweating members to be well soaked twice a day in a solution of two drachms of chloride of ammonium and four drachms of carbonate of sodium in a pint of warm water. The sweating hands or feet should be kept in the warm solution until the skin is somewhat like the washer-woman's hand. Then wipe off the water, and rub them well with an embrocation, composed of tincture of iodine one drachm, camphorated soap liniment and glycerine each a drachm and a half, and compound liniment of belladonna one ounce. He claims for this treatment a speedy cure.

TREATMENT OF PSORIASIS.—In the same number of the *Lancet*, Dr. R. H. Peterson mentions a case of inveterate psoriasis, of fifteen years standing, cured in a few weeks by the application of an ointment composed of vaseline, oxide of zinc, and sanitas oil. The last mentioned ingredient was regarded as the efficient part of the prescription. It is worthy of further trial.

CURE OF PILES BY HYPODERMIC INJECTION.—In the Peoria *Medical Monthly*, for August, Dr. Wm. H. Veatch, of Carthage, Ill., briefly narrates six cases of well-marked piles or hæmorrhoidal tumors of a chronic character, all of which he treated with entire success by hypodermic injection of carbolic acid into the tumors. The solution used varied in different cases from equal parts of carbolic acid, glycerine, and water, to equal parts of carbolic acid and water without glycerine. He sums up his experience in this mode of treatment as follows: "In the past nine years I have treated many cases as severe as the ones reported, and I wish to say for the benefit of my extremly fearful brethern, that I have never seen a case of either peritonitis, embolism, or pyæmia, follow the treatment of any case, neither have I seen serious suppuration or ulceration result from treatment." This is probably all true, and yet such results may have been seen by others, and may yet happen in the practice of Dr. Veatch.

MEDICAL LEGISLATION. — The following law to regulate the Practice of Dentistry in the State of Missouri, was recently passed by the Legislature of at State. It shows another step in advance by a State Legislature. The time is not far distant, however, when all our legislative bodies will find it as necessary for them to define what shall constitute an education, either in general medicine or in dentistry, sufficient to entitle a candidate to receive a diploma, as it is to require the candidate proposing to enter upon practice to be in possession of such a document. The following is the law;

"*Be it enacted by the General Assembly of the State of Missouri, as follows:*

"SECTION 1. It shall be unlawful for any person to practice dentistry or dental surgery in the State of Missouri without first having received a diploma from a reputable dental college or a university duly incorporated or established under the laws of some one of the United States or of a foreign government: *Provided*, That nothing in section 1 of this act shall apply to any *bona fide* practitioner of dentistry or dental surgery in this State at the time of the passage of this act: *And provided*, That nothing in this act shall be so construed as to prevent physicians, surgeons, or others, from extracting teeth.

"SEC. 2. Every person who shall hereafter engage in the practice of dentistry or dental surgery in this State, shall file a copy of his diploma with the clerk of the county court in the county in which he resides, and in the city of St. Louis with the city register, which copy shall be sworn to by the party filing the same, and the clerk shall give a certificate of such fact, with the seal of the county court attached thereto, to such party filing the copy of his diploma, and shall file and register the name of the person, the date of filing, and the nature of the instrument, in a book to be kept by him for that purpose, and as a compensation for his services, the said clerk, for filing and registering the same, shall receive a fee of one dollar, to be paid by the person filing the diploma.

"SEC. 3. Every *bona fide* practitioner of dentistry and dental surgery residing in this State at the time of the passage of this act and desiring to continue the same, shall, within ninety days after the passage of this act, file an affidavit of the said facts with the clerk of the county court of the county in which he resides, or with the city register of the city of St. Louis, if he resides in the city of St. Louis; and the said clerk or register, as the case may be, shall register the name of, and give a certificate to, the party filing the affidavit, in like manner and of like effect as hereinbefore provided, and for such services shall receive a fee of one dollar, to be paid by the party filing the affidavit.

"SEC. 4. All certificates issued under the provisions of this act shall be *prima facie* evidence of the right of the holder to practice under this act, which right it shall be incumbent upon the holder to prove under all prosecutions under this act.

"SEC. 5. Every person violating any of the provisions of this act shall, upon conviction thereof, be deemed guilty of a misdemeanor, and be punished by a fine of not less than twenty-five, nor more than two hundred dollars for each offense; and all fines so collected shall belong to and be paid into the common-school fund of the county where the offense was committed."

THE

Journal of American Medical Association.

PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, SEPTEMBER 1, 1883.

CONTRACT PRACTICE AND ETHICS.

TERRE HAUTE, Ind., J—— 21, 1883.
DR. N. S. DAVIS, CHICAGO, ILL.

My Dear Sir: At the risk of appearing intrusive, I write to ask your views relative to a case that has come before me as a member of the Board of Censors of our County Medical Society. It is this: A gentleman, a member of the "Esculapian Society of the Wabash," and permanent "Member of the 'American Medical Association,'" through having been a delegate from the Esculapians, now desires to become a member of our local society. To his admission some opposition is developing, chiefly upon the ground that he is the physician of a railroad company, under contract. Now, I find that previous to 1877 there was an "ordinance" of the American Medical Association forbidding contract practice, under penalty of loss of professional character; but that in that year, on motion of yourself, the preamble and resolution on contract physicians was stricken out by unanimous vote, on the ground of their uselessness.

May I ask, What were the reasons leading to this action? Was the "ordinance" useless because of referring to a subject which could already be referred to the code of medical ethics, or was it useless as being impracticable and incapable of enforcement, or was it the remaining alternative, i. e., that the Association does not disapprove of its members entering into contracts with railroads or other corporations?

I do not wish to extend this letter, and shall not, therefore, express my views relative to the question, any further than to say that I find myself in considerable perplexity of mind, and feel the need of the assistance of some one who has had this question already under consideration.

May I ask, therefore, my dear sir, your views, and the reasons governing the American Medical Association in the action just referred to?

I remain, with great respect, yours truly,

J. P. W.

Substantially the same questions propounded in the above letter have come to us so many times, that we feel justified in giving them a public answer. The, so-called, ordinance referred to as repealed in 1877, was in the following words:

"WHEREAS, The contract system is contrary to medical ethics,

"*Resolved*, That all contract physicians, as well as those guilty of bidding for practice at less rates than those established by a majority of regular graduates of the same locality, be classed as irregular practitioners."

This brief preamble and resolution was offered and adopted on the last day of the session of the Association in New Orleans, May, 1869.

The terms "contract system" and "all contract physicians," were so general, that they were found difficult of practical application; and in the second year thereafter, led to the adoption of a resolution offered by Dr. W. R. Finley, of Pennsylvania, asking of the Committee on Ethics a more definite interpretation of ethical rules involved. At the meeting in Philadelphia, 1872, the Committee on Ethics, consisting of Henry F. Askew, of Delaware; S. D. Gross, of Pennsylvania; Calvin Seavy, of Maine; J. K. Bartlett, of Wisconsin; and N. S. Davis, of Illinois, made the following report: "That members of the profession hired by the month or year for definite, stipulated wages, by individuals, families, railroad or manufacturing corporations, or any other money-making institutions whatever, for ordinary medical and surgical practice (always excepting benevolent and eleemosynary institutions, and medical officers of the Army and Navy), are to be classed as 'irregular practitioners,' and thereby disqualified for membership in this Association, or in a county or city Society." This report, instead of being adopted by the Association, was on motion referred to the several State Medical Societies. [See Transactions, Vol. 23, p. 55, 1872.]

Here the matter rested until 1874. During the annual meeting of the Association in 1873, a resolution was adopted instructing the members of the Judicial Council, acting as a committee, to report, at the next annual meeting, concerning the revision of the Code of Ethics. In obedience to this instruction, the committee reported at the annual meeting in Detroit, in June, 1874, on the general subject of revision. [See Transactions, Vol. XXV, 1874, pp. 28, 29, 30, 31, 32, 33.] In regard to this subject of

contract, the report contains the following: "To govern the matter of compensation the Code of Ethics simply gives us the following general declaration: 'Some general rules should be adopted by the faculty in every town or district, relative to pecuniary acknowledgments from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.' The aim appears to have been to allow of sufficient variations in the rate of compensation to accommodate the varying habits and circumstances of different communities; and yet to bind each individual to an honorable compliance with the general rules established by his professional brethren. Such being the correct ethical principle, the difficulty consists in tracing and maintaining clearly its practical application. That the principle laid down in the paragraph just quoted, is inconsistent with all contracts or agreements to attend individuals, families, companies, corporations, or any associations or institutions other than those of a strictly charitable character, for a special sum per month or year, without regard to the amount of medical service that might be required in the time specified, no one can reasonably doubt. It seems to us equally inconsistent with the ethical rule, to enter into a contract with a manufacturing company to attend their employés, or with a school to attend its patrons or scholars, for a fixed sum per annum, to be derived from a levy of a certain percentage on the wages of the employés or on the tuition fees of the students; for however plausible may be the humanitarian idea of securing for the employé or student adequate medical attendance when sick, at the smallest average cost, the practical working of the system violates both the rule that compensation for medical services should be in accordance with the kind and amount of services rendered, and that every individual and family should be free to choose their own medical attendant without dictation or indirect restraint." On motion of Dr. J. H. Van Deman, of Tennessee, the report from which the foregoing lengthy extract is taken, was unanimously adopted by the Association.

Inasmuch as the action of the Association in referring the subject of *contract practice* to the several State Medical Societies in 1872, and the subsequent action in adopting the report from which we have just quoted in 1874, had fairly superceded the preamble and resolution, adopted in 1869, the continued publication of the latter under the head of "Ordinances" was only calculated to mislead the reader. It was for that reason I moved its omission from the list of ordinances, which motion was adopted at the meeting in 1877. Our correspondent and all others interested will find in the paragraph here quoted from the report of 1874 all that relates to the compensation for medical services in the Code of Ethics, and the action of the Association regarding it, now in force, so far as relates to contracts with individuals, families, or any kind of money-making corporations or institutions.

To prevent erroneous inferences, however, it is necessary to note that both the clause from the Code and the explanation copied from the report, relate exclusively to compensation for ordinary medical and surgical practice; in other words, direct attendance upon and treatment of the sick and injured. But railroad companies and many other corporations have very important interests to serve and protect which require the aid of medical and surgical science and skill wholly independent of direct attendance on individual patients. And it is highly proper for them to employ a competent medical officer or superintendent to advise in regard to the sanitary condition of their cars, stations, workshops, etc., and to promptly attend whenever important accidents occur to see that proper arrangements are made for the care of the injured, to note the kind and extent of injuries, and if any injured are destitute of means for helping themselves to see that they are professionally provided for, and finally, to aid the company in settling, on a just and fair basis, all claims for damages. These are all duties that no one except a competent medical man can perform. And we see no reason why it is not as proper for a railroad or and other corporation to appoint a medical officer for these duties and pay him a salary, as it is to appoint and salary a superintendent of machinery. Such a medical officer, performing his duties in an intelligent and honorable manner, would not trespass upon any rule of etchics or interfere in any degree with the rights of his professional brethren in the practical performance of their duties, nor with the right of every patient to choose his own medical or surgical attendant. But he might be of great service as an intelligent adviser to all the other parties concerned. There is a clear line of distinction between such a medical officer and his duties, and that of a medical man contracting to give personally ordinary attendance upon the sick for a fixed sum per month or year; as there is also between the appointment of such an officer by a corporation and the payment of a fair salary as in the case of any other officer, and that of employing some medical man to attend to sick employés for a stipulated sum not dependent on the amount of service actually rendered, and levying a

per centage on the wages of all the employes to pay it.

YELLOW FEVER.—On the sixteenth of August Surgeon Owen, in charge of the medical department of the naval station, Pensacola, reported to the Surgeon General of the Navy that two well marked cases of this disease had occurred among the Marine Guard and had been sent to the Naval Hospital. The authorities of the city of Pensacola immediately established quarintine and a cordon for preventing all intercourse with the naval station and hospital. Commander Welch received instructions to transfer the Marine Guard to Cape Ason, six miles from the navy yard, for isolation. Active measures have been taken by the co-operation of the proper authorities, both at Washington and Pensacola, to prevent the spread of the disease. Yet new cases have continued to occur in the navy yard and hospital. Dispatches of the 29th inst. state the whole number of cases up to that date to be twelve, and six deaths. Among the latter are Surgeon Owen and Paymaster Brown. The same dispatches of the twenty-ninth of August state that the city of Pensacola, with a population of 10,000, remained entirely free from the fever and in a healthy condition. We have thus far seen no mention of any particular source from which the members of the Marine Guard, first attacked, received the infection. There are no present indications of the yellow fever either at New Orleans, Ship Island, or other Southern ports. Small-pox continues to linger in New Orleans, there having been sixteen deaths from it during the week ending August 11, 1883.

EPIDEMIC CHOLERA.—This disease appears to be slowly declining in the number of cases, both in Egypt and India. A few cases have occurred in Beyrout, Syria. M. Pasteur's investigation corps had arrived at Alexandria on the 16th of August.

We ask the attention of our readers to the following communication:

WAR DEPARTMENT,
SURGEON GENERAL'S OFFICE.
WASHINGTON, D. C. Aug. 28, 1883.

PROFESSOR N. S. DAVIS, EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, No. 65 RANDOLPH STREET, CHICAGO, ILL.,

SIR:—Congress having appropriated a small sum for furnishing special surgical appliances to those disabled in the military or naval service, your co-operation is respectfully invited in order that this relief may reach the class of persons intended to be benefited.

This office is desirous of obtaining authentic information regarding all existing cases of severe and unusual injuries. Should you have occasion to report such, it will be found useful to bear in mind the following points:

1. As no money commutation is authorized, only such cases need be presented as offer a fair prospect of being relieved by surgical or mechanical appliances.

2. Artificial limbs and apparatus for disabled limbs being otherwise provided for by law, the injuries here in view are almost exclusively those affecting the head, face or trunk.

3. As trusses are furnished under special legislation hernia, when not complicated with other injuries, is not to be understood as covered by this appropriation for special appliances.

4. As the appropriation is small, it is proper that it be expended only on the most meritorious cases. It is therefore not intended to furnish appliances which are ordinarily within the means of the individual, nor those that are of a character so perishable that it would be difficult to keep up the supply. Regard is to be had chiefly to the severity of the injury, and the ability of the sufferer, unassisted, to procure relief.

Very respectfully, your obedient servant,

C. H. CRANE,
Surgeon General, U. S. Army.

DOMESTIC CORRESPONDENCE.

TREATMENT OF PROLAPSUS ANI.

(For THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.)

In recent cases of prolapsus ani in young children, from the age of six months up to six years, the plan of treatment which has been adopted by me with uniform success is as follows: After each evacuation of the bowels, and when prolapsus has taken place, the nurse is instructed to carefully reduce the prolapsus, and to immediately inject into the rectum from two to four ounces of cold water containing from twenty drops to half a drachm of the fl. ex. hammamelis. This is continued from day to day until the parts are restored to health, which usually requires from one to four weeks.

During treatment if the bowels become constipated they should be regulated by an occasional dose of castor oil or some other mild laxative, and, in the meantime, all exciting causes must be removed, and the patient's general health carefully looked after.

J. F. JENKINS, M.D.

TECUMSEH, Mich.

RUPTURE OF HYDATID TUMOR INTO THE PERITONEAL CAVITY, WITH RECOVERY.

August 25, 1883.

This case is reported for its rarity, in fact non-precedence, as far as we are able to ascertain.

E. C., age 43, American, county sheriff. Some three years ago this gentleman called upon me for relief from an alleged scrotal hernia of the right side. Examination disclosed the disease as an in-

durated testicle. He had pain in the right lumbar region, which was attributed to the supposed hernia; this pain had at intervals annoyed him for several years, during which time its true source had escaped detection. Previous to his call upon me he had noticed an enlargement in his right side, which had slowly increased in size, and which, in connection with resulting symptoms, was the occasion of his seeking aid. He was slightly jaundiced, with loss of appetite and tenderness of the hepatic region, the latter much aggravated by turning while in a recumbent position. The patient was not confined to his bed, but was conscious of a progressive debility and steady increase of the symptoms described. At the lower border of the ribs upon the right side, and evidently attached to the inferior surface of the liver, was found a tumor about the size of an orange; it was tense at times, at other times more yielding and slightly tender under manipulation. At this time Dr. Fletcher, of Lisbon, Iowa, a relative of the patient, was called to visit Mr. C. as consultant; whereupon it was agreed that our patient was suffering from a hepatic growth, and, aside from counter irritants and strict quiet being enjoined, little else was advised, and a specific diagnosis was reserved. Under these conditions our patient slowly improved, the tumor seemed to partially subside, and he resumed his official duties until January, 1882, when, after unusual exposure and exertion in the arrest of a criminal, the lumbar pains returned. The tumor again became prominent, and, in an aggravated form, all the former symptoms reappeared. The symptoms were all reasonably attributable to pressure of the growth upon adjacent parts. No rigors pointing to abscess, no cancerous cachexia, the long duration of the disease also excluding the theory of malignant disease or obstructed gall bladder. Hydatid disease was diagnosed as the probable difficulty, and early puncture the only recourse.

Dr. Fletcher was again requested to see the patient, who, with my friend Dr. N. Bryant, of this city, met me in the case. To verify the diagnosis, it was determined to obtain a specimen of the contents of the tumor by using an ordinary hypodermic needle. The growth extended nearly to the umbilicus, and to steady it, Dr. F. firmly compressed its area, and upon introducing the needle, the barrel of the instrument at once filled with a clear, spring-like fluid. Immediately upon the withdrawal of the needle, the patient complained of an acute pain above the pubes, some distance below the location of the tumor. The pain rapidly increased in intensity, in spite of an anodyne and fomentations. It becoming evident that our patient was suffering from no ordinary complication, rupture of the cyst was suspected, whereupon an examination fully verified the apprehension, as the tumor had wholly disappeared. To abbreviate the history of the case during the next four hours, it needs only to be stated that during this time the patient seemed any moment likely to succumb from shock; deep lividity of surface; pinched features; extremities cold; pulse absent. During a period of five hours, he received four grains of morp. sulphas hypodermically, also two injections of tinct. opii of ʒj each. No approach to narcosis apparent. Warmth and fomentations were of course employed. The abdomen was tense and hard, but not swollen. After four hours, the terrific pain began to yield, the natural color returned, and the pulse improved. The specimen of fluid obtained from the cyst contained no albumen, and was beyond question hydatid. Its bland, unirritating character favored its rapid absorption by the peritoneal sac, thus helping to save our patient. There is unbroken uniformity in the testimony of authorities as to the invariable fatality of rupture of such a cyst into the peritoneal sac. Gross says unconditionally, that it is fatal. May not the rapid antidotal effect of opium as secured by its heroic hypodermic use, account for success, when, were we to use it per orem, the time required for its effect would prove a fatal delay? Perhaps we do not fully appreciate this advantage of hypodermic medication. Some local tenderness over the former region of the tumor continued for a time, as the result of inflammation in the torn sac. The attendant symptoms rapidly subsided, and now, about one year from the date of the accident, Mr. C. is free from any sign of the trouble, and enjoys a state of health unprecedented in excellence for many long years.

N. C. MARKHAM, M.D.

INDEPENDENCE, IOWA.

BITES OF SERPENTS.

In the article on the Medical and Surgical Practice of the Aborigines of America, contributed by F. Andros, M.D., and published in your issue of Aug. 4, it is stated that some tribes apply the bruised wild onion for the stings of bees and wasps. I am not aware that any similar practice has been recommended in the literature of our profession, though the juice of the common onion is an excellent application for this purpose. It should be thoroughly applied to the wound immediately after the sting has been received. It acts as a very perfect antidote to the poison, prevents swelling and speedily relieves the pain. No treatment for the bite of the rattlesnake could be better than the Indian practice of sucking the wound; and this involves no danger to the operator, for the venom is innocuous when taken into the stomach. The Indians probably acted wisely in omitting to use internal remedies, for it is not likely that the poison can be neutralized by antidotes administered through the digestive system. Brainard demonstrated the antidotal powers of iodine when mixed with the venom of serpents, but he injected the antidote, with a hypodermic syringe, among the tissues where the poison had been received. The local effects of the poison of the prairie rattlesnake, or massasauga, seem to me to be in excess of the constitutional ones. I have seen a bite on the finger cause great swelling to the entire arm, attended with a discoloration that suggested gangrene, and yet it did not produce sufficient constitutional effects to cause apprehension. In one case, I gave great relief to a patient by a free incision into the parts where the poison was received, though two hours had elapsed after the injury before I saw the case. The bite was on the foot, and a

bandage had been placed tightly around the limb just below the knee immediately after it was received. The patient suffered great pain in the extremity, but this was immediately relieved by the out-flowing blood, and little constitutional disturbance followed. In the early settlement of the prairies of Illinois, to be bitten by a massasauga was not an uncommon accident, but I never knew such a case to terminate fatally. Methods of treatment that have been approved by the experience of unlettered people, should ot be held as entirely beneath the notice of the profession, for in their blind experiments they may sometimes hit on what is valuable for the relief of the sick.

E. INGALS, M.D.

34 Throop St. CHICAGO.

MEDICAL EDUCATION AND MEDICAL DEGREES IN ENGLAND.

MR. EDITOR:

I thought it might be interesting to many of your readers to learn something about English medical qualifications. I have met quite a number of medical gentlemen and students in this country who were under the impression that every medical man there was an M.D., and when told that only about five per cent. possessed that degree, were greatly surprised. The qualifications granted there are of two kinds, viz.: degrees and diplomas; the former is only conferred by a university, while the latter is conferred by an examining board called a college. No medical school in Great Britain can give any degree or diploma. The examinations for a degree and diploma are about the same, the former requiring a higher standard and a higher literary qualification; some universities demanding a literary degree or a corresponding examination, while the colleges are satisfied with a literary qualification corresponding to the matriculation examination of the good literary colleges in this country. The literary requirements must be passed before the commencement of medical study. Then the student is registered by the General Medical Council, and no one can go up for his final examination for a degree or a diploma unless four years have elapsed since he was registered.

The degrees granted are M.B.B.S. (Bachelor of Medicine and Bachelor of Surgery); M.D.M.S. (Doctor of Medicine and Master in Surgery). The Scottish universities give the M.S. or M.CH. later (Chirurgia), with the M.B. It takes from one to five years in the different universities before an M.B. can go up for the M. D.

The diplomas are granted by the different examining boards or colleges. These are divided into surgical and medical, viz: The Royal College of Surgeons of England (London); ditto Edinburgh; ditto Dublin, and Faculty of Physicians and Surgeons, of Glasgow. These colleges give the title of Licentiate, with the exception of London, which is a Member. They also give the title of Fellow by a further examination, in London and Dublin (which is a very severe examination), and by election in Edinburgh and Glasgow.

The colleges of physicians are the Royal College of Physicians of London; ditto Edinburgh; the King and Queen's College of Physicians, Ireland (Dublin); the Apothecaries Society, or Hall, of London and Dublin. All these colleges give the title of Licentiate, and by a further examination the title of Member, and further still, Fellow, which is a very high and honorable distinction. The two Apothecaries Halls give only the title of Licentiate, which gives the same privileges as the Licentiate of the other colleges (medical).

Some years ago the favorite qualifications used to be M.R.C.S. England and L.S.A. or L.A.H.

A man before he is fully qualified must have a surgical and medical degree or diploma.

One may study in any medical school in Great Britain or at any recognized foreign medical school, and go up for examination before any of the colleges mentioned.

The degrees granted by the University of London are considered the highest (this is only an examining istitution); it is undoubtedly the hardest medical examination in the world. *Mr. Editor*, I cannot see why every medical man in this country should be an M.D. any more than every lawyer or minister an LL.D. or D.D. The M.D. degrees take precedence of all other degrees in England.

I might mention also that there is another degree-dispenser in England (Buchanan style), viz.: His Grace the Archbishop of Canterbury; he can give any degree he likes to whom he pleases, and in the English Medical Register is to be seen quite a number of M.D.'s Lambeth; they are all granted by his Lordship, without any examination. In your first number I find a resolution passed by the Chicago Medical Society recommending a State Board of Examiners, before whom every candidate for registration in Illinois has to appear, whether a graduate or not, and their work deserves high commendation. I would respectfully recommend the Ontario Medical Regulations and Laws as a model worthy of imitation. Success to the National Medical Journal.

A STUDENT.

[Just as the JOURNAL goes to press we have received the following interesting translation of M. Pasteur's letter, from a friend.—ED.]

The French government has authorized Prof. Pasteur to organize a commission to investigate the causes, character, and treatment of cholera in Egypt, and has made an appropriation of 50,000 francs for that purpose.

The French Commission left Paris August 8, and arrived in Alexandria on the 16th. The members of the French mission are: The chairman, *Dr. Strauss*, physician to the hospitals of Paris, general secretary of the Biological Society; *M. Roux*, *M. Thuillier*, and *Nocard*, professor of the veterinary school of Alfort.

The "*Temps*" publishes the following

LETTER OF MONSIEUR PASTEUR,

in reply to the many inquiries addressed to him in regard to the instructions he has given to the *French Commission on Cholera in Egypt:*

"I have indicated to the members of the French

mission on cholera the precautions they have to take against the causes of contagion. These measures are instituted on the probable, though not certain hypothesis, that cholera does not enter the human organism through the respiratory track, but solely through the digestive organs, unless it be under some very exceptional circumstances:

"1. Do not make use of *potable* water in any locality where the mission make their investigation, without having previously boiled it, and then well agitated it on cooling for two or three minutes, in a bottle half filled and well corked.

"The water of any locality may be used, provided it be obtained from the source in '*flambés*' vessels, that is to say, in vessels which have been kept for several minutes in an air heated to 150 degrees or more. The natural mineral waters can be used to advantage.

"2. Make use of wine which has been heated in bottles at 50 or 60 degrees, and drank out of '*flambés*' glasses.

"3. Make use only of well cooked aliments, or of native fruit after having been laved with boiled water, which had been kept in the vessels in which it was boiled, or in other well '*flambés*' vessels.

4. The bread cut in three slices, which slices have to be subjected to a heat of 150 degrees for about twenty minutes.

5. All table and kitchen utensils have to be subjected to a temperature of 150 degrees or more.

6. Table, bed, and toilet linen must be plunged in boiling water and then dried.

7. Water used for scullery or anywhere about the house should have been boiled and after cooling $^1/_{500}$ of thymic acid (one liter alcoholized water to two grammes of acid), or $^1/_{50}$ (one liter in twenty grammes) of phenic acid added.

8. Wash hands and face several times a day with boiled water, with the addition of a little thymic or phenic acid.

9. When cadavers, or linens soiled with choleric dejections are to be handled, use a small mask over the mouth and nostrils, made of two fine metal wire disks, between which place one centimeter thickness of cotton wadding, previously subjected to a heat of 150 degrees; the heating to be renewed at every new contact with infected material. PASTEUR.

REVIEWS.

THE PREVENTION OF INSANITY.—By NATHAN ALLEN, M.D., of Lowell, Mass. Boston: Wright and Potter Printing Co. 1883.

This is a neatly-printed pamphlet of twenty-three pages, written by one of the most earnest and intelligent cultivators of sanitary science and vital statistics in our country. As the author justly states, very much has hitherto been done to ameliorate the condition of the insane, and cure such cases as might be curable, but little or no organized measures have been taken to *prevent* or limit the prevalence of insanity in its various forms. Yet he claims that it is to a large extent a preventable disease. In proof of this, he first makes the following quotations from the late Sir James Coxe:

"Insanity is a disease of ignorance,—ignorance of the human organism, and the laws that regulate it; and the only way to check its growth is by a general diffusion of a knowledge of these laws, and use of all those means necessary for the preservation of good health. Insanity originates in some form of disease, in a deterioration of the body rather than in an exclusive affection of the nervous system. The six leading factors are dissipation in various forms, overwork, meager fare, lack of ventilation and neglect of moral culture."

In reference to the causes stated in this quotation our author comments as follows:

"Says Sir James, the leading factors are 'dissipation in its various forms, overwork, meager fare, lack of ventilation, and neglect of moral culture.' It will be seen that each one of these covers a great deal of ground. Passing by the last point—neglect of moral culture—the other four constitute the chief sources of disease of all kinds, some of which terminate in mental derangement. But nearly all these great agencies, productive of so much disease of body and mind, are subject to human control, and can be more or less checked, if not entirely prevented.

"The first named, dissipation, is a fruitful source of insanity. This may consist in drinking habits, in the use of tobacco and opiates, or in the abuse of the sexual organs, by licentiousness and solitary vice. These evils are all the results of voluntary acts, the work of a free agent; and so they can be prevented.

"Overwork of body or mind not infrequently brings on mental derangement.

"Meager fare and bad air are evils which multitudes of poor people cannot always escape. Neglect of moral culture is an evil directly connected with the choice of individuals, and the state of public morals. It is a sin or an evil which can be corrected, wherever the fault may be, and there certainly can be no necessity or justification for any neglect."

If, as here stated by both Sir James Coxe and Dr. Allen, "dissipation is a fruitful source of insanity," and a removal of the cause is equivalent to prevention of the disease, then certainly it must be admitted that our country has been for many years full of organizations composed of earnest and intelligent men and women working faithfully for the suppression of dissipation from the use of alcoholic drinks, opiates and tobacco; and, of course, indirectly for the prevention of insanity and all other evil consequences resulting from such dissipation. "Neglect of moral culture" is alleged as another important cause of insanity. But as every temperance society is an organization for the express purpose of suppressing "dissipation," so is every well regulated school and every religious society an organization working constantly for the promotion of moral culture and the diffusion of knowledge.

If it be true, therefore, that we have no organizations, either voluntary or legal, having for their avowed object the *prevention* of insanity, we have many and efficient ones engaged directly in the work of removing some of the most prolific causes of mental disease. All this, however, does not prove

that the pamphlet under consideration has not appeared in good time and is calculated to do much good. On the contrary, it is timely in its appearance and full of important facts and suggestions; as the following quotations, which constitute the closing paragraphs, and relate to the "Duty of Legislative Bodies," will show:

"Almost any amount of money has been expended in building and managing lunatic hospitals, but nothing to prevent insanity. If one-tenth, or even one-hundredth of the means now so lavishly bestowed upon this unfortunate class in large institutions were expended in different ways to *prevent insanity*, in cutting off its supplies, what a difference it might make in diminishing the number of the insane and reducing the amount of suffering! How long will it take the public, and legislative bodies particularly, to learn the truth of the proverb, 'An ounce of prevention is worth a pound of cure!'

"If, by a general diffusion of a knowledge of hygiene, and the application of sanitary laws, one-quarter or more of the sickness and premature mortality can be prevented, certainly some small portion of the existing insanity should be prevented by similar means; especially as preventing diseases and improving the general health of the people must aid in checking the first approaches of insanity.

"It surely should be the settled policy of all legislative bodies and the executive officers of every State to carry on systematic measures for the prevention of insanity; and, unless such provision is made by legislative action, the work will never be done. The number of the insane and of lunatic hospitals, together with the burdens of their expense, will increase more and more.

"Let *prevention*, then, receive some attention. The claims of humanity and economy demand it.

"But no movement of this kind will be made unless encouraged by legislative action. Public bodies, when called upon to make large expenditures year after year, often resort to the the wise expedient of providing what is called a "sinking fund," to aid in liquidating the debt. If some systematic and efficient measures could be employed to prevent persons from becoming insane, even if the number were small, what better sinking fund could be devised?

"It is fifty years since the first State hospital was opened for the insane, yet probably at no period were this unfortunate class increasing faster than at the present time. This is especially true of the chronic and pauper class. If they fail to receive proper treatment in private practice, and the hospitals cure only about one-half, the balance is added every year to the public dependents. How long can such a state of things continue? And, unless reform or improvement comes from some quarter, what and where is the end to be?

"Some one may inquire, What can we do? When such inquiries are made in earnest, and by the proper authorities, the work will have commenced. Ways and means will soon be devised. Questions frequently constitute the first step in reform.

"For how long are we to continue building great institutions, and making large appropriations every year for carrying them on? At the same time, insanity is constantly increasing, making the burdens of taxation every year heavier and heavier. It may well become us to adopt the confession (already quoted) made before the lunacy committee of Parliament: 'The fact is, we have allowed a terrible evil to grow up among us, and we have been content to lop its branches, leaving the growth as luxuriant as ever, instead of directing our efforts to destroy it at the roots."

MALARIAL POISONING THE CAUSE OF HÆMATURIA. With an Appendix. By W. O'DANIEL, A.M., M.D., Bullards, Georgia.

This is a pamphlet of fourteen pages, reprinted from the Transactions of the Medical Association of Georgia, 1882.

The writer adduces satisfactory proof of the connection between the action of concentrated malarial poison and a dangerous form of hæmaturia. He relates some instructive cases with their treatment, and closes his paper with the following question and answer:

"Why has the malignancy of malarial fevers so increased, *especially* in the cotton-growing States, since the war? One of the most potent and rational causes, to our mind, is on account of the failure on the part of agriculturists generally to *properly* drain their bottom, branch and creek lands, as they did before the war, thereby preventing vegetable decomposition during the summer and autumn months, which is sure to produce miasmatic fevers.

"Such lands were then appreciated and kept in a high state of cultivation, and the annual return from the crops *abundantly* repaid for the trouble; whereas now, the scarcity of and a want of reliable labor for the accomplishment of such work, renders drainage impossible in many instances; hence the cause of the poisonous influences. Therefore, those who persist in residing in close proximity to soils which are allowed to remain in a condition which is favorable to the production of these foul emanations, malaria, miasma, spores, cryptogams, germs, bacteria, bacillus malariæ, or whatever they *may* be called, *may expect with great certainty* annual visitations of malarial fevers *caused* by these toxic influences."

ANATOMY, DESCRIPTIVE AND SURGICAL, by HENRY GRAY, F.R.S.; with an Introduction on General Anatomy and Development, by T. Holmes. Edited by T. P. PICK. A new American from tenth English edition; with Landmarks, Medical and Surgical, by L. Holden. H. C. Lea's Sons & Co., Philadelphia.

There is probably no work used so universally by physicians and medical students as this one. It is deserving of the confidence that they repose in it. If the present edition is compared with that issued ten years ago, one will readily see how much it has been improved in that time. Many pages have been added to the text, especially in those parts that treat of histology; and many new cuts have been introduced, and old ones modified. In the matter of

illustration there is much room still for improvement. Many of the old cuts, illustrations of minute anatomy, are too much diagrammatic, and not sufficiently realistic. Another criticism upon them, also, is the failure to say just how much the specimens were magnified. Much improvement has also been made in the illustrations of the relations of the visceral organs, but there is also room for further improvement here. For example, the old cut of the pelvic organs is retained, showing the vagina and rectum unnaturally dilated. The present edition is well printed on good paper, and is well bound. The work is so thoroughly well known that an extended notice here is unnecessary.

SANITARY AND STATISTICAL REPORT OF THE SURGEON-GENERAL OF THE NAVY FOR THE YEAR 1881. Washington, Government Printing-Office. 1883.

This, the annual report of Surgeon-General Wales, is a bulky octavo of 684 pages. In his introductory remarks, he calls attention to the fact that a laboratory has been established for original work, and that a museum and library have been founded. The library already contains nearly four thousand volumes. The want of proper appropriations for the hospitals and other branches of the service is justly deplored; in several instances about one-half the amount required being appropriated. The valuable services rendered by the hospital branch are well shown in the summing up by figures—giving 14,013 cases as the total number treated during the year. An interesting table is given referring to the examination of recruits, of whom 8,807 presented themselves, and of these 2,750 were rejected, or 31 per cent. The causes of rejection are tabulated, and the largest number, 661, is from defective development; next to this come diseases of the eye, 590. Syphilis we find put down at 115; diseases of the digestive system 456, and diseases of the circulatory system, 364, make up of course a large proportion; while diseases of the respiratory system are put very low, 85. A series of interesting tables are given, which form valuable additions to the statistics of diseases, their causes, and the influence of age upon them. The work of Dr. T. H. Streets in studying the different organisms of air dust is given at some length, with interesting photo-micrographic delineations of bacteria, and in connection with it, the work of a board of survey for sanitary purposes on the proposed (now accepted) site for a new Naval Observatory, shows how thorough the facilities for examining into air, drainage materials and the soil have become. The analyses were done by Drs. Griffith and Kidder. The reports on the sanitary conditions of our squadrons, and of the naval hospitals, form the bulk of the report, and some interesting details of cases are given, but there is no table of contents, the cases as printed are not given a sufficiently individual character by distinct topography, and the index is very imperfect. Dr. J. M. Flint closes the volume with a report on the pharmacopœias, valuable in its details and criticisms.

W. L.

MISCELLANEOUS.

T. H. HUXLEY and J. Tomes have been recently elected Honorary Fellows of the Royal College of Surgeons.

THE fourteenth annual meeting of the Virginia State Medical Society will be held at Roxbridge Alum Springs, September 4 to 6.

THE King of Prussia has given permission to Dr. Koch to wear the Commanders' Cross of the Royal Spanish Catholic Order of Isabella.

THE Duval Prize has been awarded to Dr. Desuos by the Paris Society of Surgery, for an essay on "Lithotrity in Prolonged Sittings."

DR. H. J. BIGELOW, of Boston, Prof. Charcot, of Paris, Prof. Du Bois Reymond, of Berlin, and M. L. Pasteur, of Paris, have been elected Foreign Honorary Fellows of the Royal Medical and Chirurgical Society of London.

THE Garfield Hospital Board, of Washington, has bought a double brick house and seven acres of land for $38,000, and has money in bank to pay for a wing costing $15,000, which it is proposed to add to the present building. It is expected that the hospital will soon be opened for patients. There is no truth in the story that the hospital project has been abandoned, and that the money given for that purpose will be turned over to the monument committee.

DR. H. NEWELL MARTIN, professor of biology in John Hopkins' University, is Croonian lecturer of the Royal Society of London for the current year. The Croonian lecture was founded by Lady Sadlier, in fulfillment of a plan of her former husband, Dr. Croone, one of the founders and the first registrar of the Royal Society. By her will, made in 1701, she devised one-fifth of the clear rent of the King's Head Tavern, in or near Old Fish street, London, at the corner of Lambeth Hill, to be vested in the Royal Society, for the support of a lecture and illustrative experiment on local motion. For many years past there has been no formal deliverance of the lecture. The council of the Royal Society select from the papers presented to them during the preceding twelve months that one dealing with animal motion which they think most noteworthy, and publish it as the Croonian lecture, sending to the author the sum derived from Lady Sadlier's bequest. The amount of money is trivial, but the appointment as Croonian lecturer is a highly-prized distinction. The paper by Professor Martin, which is to be printed as the Croonian lecture for 1883, is on the 'Effect of Changes of Temperature on the Beat of the Heart.' It is interesting to note that the first Croonian lecture delivered by Dr. Stuart in 1738 was on the 'Motion of the Heart.'—*Bost. Med. and Surg. Journal.*

NECROLOGICAL.

WILLARD, MOSES THOMPSON, M.D., of Concord, N. H., was born in Bow, N. H., June 21, 1806; died at his residence in Center street, Concord, May 31, 1883. He was the son of Moses F. Willard. He was educated at the Pembroke Academy, and took his medical degree from the Medical College at Hanover in 1835. Soon after graduating he began the practice of dentistry in Concord, and was extensively patronized. I am not informed that he ever engaged in the practice of medicine. His name appears as a delegate from the Center District Medical Society, of New Hampshire, to the American Medical Association, in 1849. He was public spirited and popular as a citizen. He served as Alderman in 1857–8, and Mayor of the city in 1859–60, and Postmaster under Johnson and Grant. He was an ardent Son of Temperance, and long identified with the interests of public education. Dr. Willard was twice married, first to Mary B. Morgan, of Pembroke; after her death, to Zelda Morgan, of the same place, who died about two years before the Doctor. He left no children. J. M. T.

WILBUR, HARVEY BACHUS, M.D., of Syracuse, N. Y., was born at Wendell, Mass., August 18, 1820, and died suddenly at the State Idiot Asylum in Syracuse, May 1, 1883. He was the son of the Rev. Harvey Wilbur, of Massachusetts. He was first in study, and graduated at Amherst College in 1838; taught school for a short time, and studied engineering, and then medicine, and practiced for a time at Lowell, and then at Barre, Mass. Became interested in the welfare and education of idiots, and in 1848 received several into his own house to educate. In 1851 he induced the Legislature of New York to establish an experimental school at Albany, which proved so satisfactory as to lead to a permanent and fully organized institution for idiots at Syracuse in 1854, which is known as the State Asylum for Idiots. Dr. Wilbur continued its efficient superintendent until his death. He published various reports and papers on idiocy, which show his thorough familiarity with his subject. In 1860 he attended the American Medical Association as a delegate from the New York State Medical Society. J. M. T.

HOLMES, CHRISTOPHER COLUMBUS, M.D., of Milton, Mass.; was born in Kingston, Mass., Sept. 14, 1817, died at his residence in Milton, July 16, 1882. His academic education was obtained at Harvard College, where he graduated in 1837. His medical degree was received from the same university. He then served for a year as junior physician in the Massachusetts General Hospital, after which he settled to practice in Milton, where he was actively engaged in the duties of his profession until the time of his death. His field of practice was a laborious one, often calling upon him to visit patients in Dorchester, Quincy, Canton, and other remote towns. Although devoted to his profession, and conscientious in the discharge of its obligations, he found time to interest himself in all public matters which benefited the people. During the civil war he was commander of the cadets, a local military organization. He was a man of refined tastes and eminent social qualities, and his presence in the social circle and the sick room always brought sunshine. He will long be remembered by his townsmen and by his professional brethren as a steadfast friend and wise counsellor, and a Christian gentleman. He was a member of the Massachusetts Medical Society, and since 1853 of the American Medical Association. He leaves a wife and three children. J. M. T.

From data furnished by Dr. H. O. Marcy.

HAUXHURST, D. C., M.D., of Battle Creek, Michigan, died of small-pox in Paris, France, Feb. 16, 1882. Dr. Hauxhurst was born in Oxford, Oakland county, Michigan, and was 39 years of age at the time of his death. He early developed a love for scientific study. After spending some years in Bedford Seminary he gave up two years to the special study of geology and became quite proficient in this science. He then spent one year at the Michigan State Agricultural College in the practical study of chemistry. Subsequently, having practiced dentistry for several years, he entered the Michigan State University, continuing attendance, with some interruptions, for five years, until 1877, graduating first in the dental department in 1876, and in the medical department in 1877. In 1878 he became a member of the State Medical Society. In 1881 he married a daughter of Hon. T. B. Skinner, of Battle Creek, and the happy pair went to Paris on their bridal tour, where the doctor was pursuing his studies when he fell a victim, as many of his friends think, to his non belief in the value and efficiency of vaccination in preventing small-pox. It is stated that he had not been vaccinated. Dr. Hauxhurst held that dentistry should be considered a specialty in a medical education, and that every dentist should be thoroughly versed in medical science. By his death scientific medicine has lost one of its most enthusiastic workers, and this Association an honored member. He was an earnest, persistent student, a quiet, modest gentleman, a faithful friend, a true physician, and an honest man. The Calhoun County Medical Society, on hearing of the doctor's death, convened and passed a series of resolutions, expressive of the highest esteem of his professional worth, and of sympathy with his family.

[Sketch forwarded by DR. W. F. BREAKEY, of Michigan.]

FARRAND, DAVID OSBURN, M.D., was born in Ann Arbor, April 23, 1837, and was of Hugenot descent. He was the youngest of four children born to Bethuel and Deborah Farrand.

After only a few days of illness, during which his friends entertained no serious fears for his safety until his last hours, Dr. D. O. Farrand died at 5 o'clock Sunday morning, March 19, 1883.

His father founded the first water works in Detroit, and after removing to Ann Arbor became the first judge of probate of Washtenaw county.

Dr. Farrand received his education in the common and private schools, and subsequently entered the university, where he pursued a literary course. From there he went to Munich, Bavaria, to complete his studies. He remained in Munich one year, and, returning in 1858, entered the wholesale drug-house of his brother, Jacob S. Farrand. He remained there two years, having in the meantime decided to become a physician. In order to pursue his studies he entered the New York College of Physicians and Surgeons. Graduating in 1862 he entered the regular army as assistant surgeon, and made his headquarters at St. Louis, Mo. In 1865 he resigned his position. The year previous he attended the late Gen. Lewis Cass, and remained with him until his death, which event took place in the room afterward occupied by Dr. Farrand for private consultations, at his office adjoining his residence on Fort street. In 1866 Dr. Farrand was taken into partnership with the late Dr. Zina Pitcher, which continued until Dr. Pitcher's death in 1871. September 11, 1866, he was united in marriage to Miss Elizabeth Lewis Twombley, of Niles, Mich., daughter of Royal T. Twombley, of that city, and now of Fort Worth, Tex. Mrs. Farrand and three children, Royal T., aged 15; May, aged 13, and Elizabeth T., aged 12 years, are now living. He has three brothers, J. B. and B. C., of Port Huron, and Jacob S., of Detroit.

Dr. Farrand was a member of the American Medical Association, of the Michigan State Medical Association, and the Detroit Medical and Library Association. He was for six years a member of the Detroit School Board. At the time of his death, and for many years previous, he was surgeon to the Harper Hospital and of the Metropolitan police, surgeon-in-chief of the Michigan Central Railroad, chief medical examiner of the Michigan Mutual Life Insurance Company, and one of its directors.

In all that pertained to the interests of the community he was active. In political affairs he was a Republican, as earnest as he was well informed, and he used to say that he found his only recreation in politics. His endeavor was for the public good. He made earnest efforts for the advancement of the cause of popular education in this city, and was an effective advocate of the recent change in the method of selecting the members of the Board of Education. He was instrumental in securing the establishment of the temporary Board of Health during the small-pox season of 1881, and during the continuance of that Board he took the greatest interest in it. It was through his instrumentality, chiefly, that the present permanent Board of Health was organized. He was the author of the bill creating it, and was the first member of the Board appointed. He was unanimously chosen its first president. He attended all the meetings of the Board, and took an intense interest in the work performed by it. He was ever willing to take upon himself labor when he thought hr could thereby serve the interests of the public or of any friend. He was always in earnest and he was always cheerful. One never met a more pleasant, affable, courteous, and perfect gentleman than Dr. Farrand.

After the death of Dr. Pitcher, Dr. Farrand formed a co-partnership with Dr. George B. Foster, which lasted until the latter's death in 1881. In a business which aggregated more than $20,000 per year, there never was a stroke of the pen between the two partners.

The sad prediction of many friends that Dr. Farrand would die of over-work, seems to have come only too true. It is but a few months since he recovered from a protracted and serious illness, the result of doing too much, and the exciting cause of his fatal malady was over-exertion. In spite of his exacting duties he never pleaded lack of time when asked to do a favor, and his immense work was so systematized that only his immediate acquaintances knew the extent of it. He died in his prime, having literally given his noble life to his friends, who will now so deeply mourn his untimely departure, and long hold him in loving remembrance.

The Board of Health and the Medical Library Association as well as the Medical Society convened in special session, and each passed appropriate resolutions of respect for his memory and of condolence with his family.

Forwarded by Dr. W. Bracky.

Fussell, Edwin, M.D., was born in Chester county, Pennsylvania, June 14, 1813. His boyhood was passed in working on his father's farm, and his education was obtained chiefly by study at home. At the age of twenty he began the study of medicine in the University of Pennsylvania, and graduated in 1835. After practicing one year in his native place, he removed to Indiana, where he remained seven years. From there, after six years more of residence in Chester county, Pennsylvania, he went to Philadelphia, where he remained until 1868. In 1853 he he was elected to the professorship of anatomy and histology in the Woman's Medical College of Pennsylvania, which position he filled very ably until 1857, when he was transferred to the chair of obstetrics and the diseases of women and children. This was a position more congenial to his tastes and more in accord with his attainments; for his gentle and sympathetic disposition had inclined him to that special department of practice, and in it he had achieved a well-merited reputation. In 1865 he accepted a transfer to the chair of principles and practice of medicine, which he continued to fill until 1868, when failing health compelled his retirement, for a few years from his profession to a farm on the sea-shore, near Cape May.

When Dr. Fussel accepted a professorship in the Woman's Medical College he did so at the risk of forfeiting the fellowship of his medical brethren, for the cause represented by that college was intensely unpopular among conservative people, and especially so to physicians, who could not overcome at once a feeling of professional jealousy toward women as physicians. But he was accustomed to encounter public disapproval in his resolute advocacy of temperance and abolition. Indeed, he inherited the mental temperament that impelled him to do whatever he believed might be of public benefit, though

at the cost of personal disadvantage. It was his father's brother, Dr. Bartholomew Fussell, of Hamorton, Chester county, who first conceived the idea of the Woman's Medical College; and he, too, was an ardent advocate of temperance and the abolition of slavery.

In 1849 he invited Drs. Edwin Fussell, Franklin Taylor, Ezra Michener, of New Garden, Chester county, and the writer of this memoir, to confer with him on the subject at his home in Hamorton.

In 1871, Dr. Fussell removed to Media, Delaware county, and resumed the practice of medicine. He was a member of the Philadelphia Academy of Natural Sciences, of the Delaware County Institute of Science, of the Delaware County Medical Society, of the Medical Society of the State of Pennsylvania, and of the American Medical Association, in 1876. He attended but one meeting. As a member of our county society, he was a faithful attendant, a prudent counselor, and always a cheerful presence to the younger members.

In his domestic and social relations he was amply repaid for all he suffered as a philanthropist. In his family he was the affectionate husband of a loving wife, and the revered father of dutiful children. In society, he had always many warm friends among people of cultivated intellects and refined tastes. No one who was capable of appreciating him could fail to respect him. Yet when those are all told—the record of a life busy in doing good—the best can never be told. The "little, nameless, unremembered acts of kindness and of love;" the kindly smile; the gentle word; the cheery joke; these were the daily habit of his life, and are sunk deep in the hearts of those who knew him.

ELWOOD HARVEY, M.D.

COX, EDWARD, M.D., of Battle Creek, Mich., was born in Cambridge, Washington county, N. Y., died at his residence in Battle Creek, Mich., September 19, 1882. He was the son of Silas and Abigail Cox. Having acquired a good ordinary education he studied medicine partly with Dr. Benjamin Trumbull, of Boradina, and Dr. C. Campbell, of South Butler, N. Y. He attended lectures at Geneva Medical College, New York, where he graduated M.D, in 1839. He began practice in Wayne county, N. Y., but in September of 1839, removed to Battle Creek, Mich., then a small village.

A notice of the character and life of Dr. Cox is published in the columns of the Detroit *Lancet*, and also in the Battle Creek *Journal*, and is a deserved tribute to the memory of a good man:

"Another of the pioneer physicians of Michigan has gone. For more than forty years Dr. Cox has lived and labored in Battle Creek. He was an excellent doctor, but he was far more than a doctor. He was a man among men, acting, thinking and speaking in reference to all questions of importance, to the wellfare of the city, his State, and his country. While a politician, in the best sense of that term, he was more. He was even a patriot. When the war with the South broke out, although a Democrat, he at once suggested, and succeeded in realizing the suggestion, that the flag poles of the separate parties should be placed together as an emblem to those who should see it that in support of the country the mass of the members of both parties in Battle Creek were ONE. Until July 1 Dr. Cox continued to meet all the calls of an extensive general practice. Attacked first with pneumonia, he finally succumbed on September 19, 1882. At his funeral on the 21st were gathered representatives of the medical profession from all parts of the State of Michigan, as well as from his town and surrounding counties. Nor was the attendance of these gentlemen a mere formal service, as their speeches at the memorial services will abundantly testify. It is very unusual, to say the least, that so many friends in all professions and walks of life for many years testify so uniformly to the value to them and to the world of a strong, manly heart and head in a member of the medical profession."

A memorial notice of the life and character of Dr. Cox was read by Dr. Jerome at meeting of Board of Counselors for Detroit Medical College and remarks made by members of that body, expressing the high estimate in which he was held by his professional brethren and friends. The Committee on Necrology of the State Medical Society report to that society an appreciative biographical sketch with resolutions of respect for his worth and sympathy for his family, which will be published in transactions of society for 1883.

W. F. B.

DOUGHERTY, ALEXANDER N., M.D., of Newark, N. J., was born in that city in 1820, died suddenly of disease of the heart Nov. 29th, 1882. He was the son of Alexander Dougherty, a wealthy leather manufacturer of Newark. The subject of this sketch was a graduate of Oberlin College, Ohio. He then began the study of medicine and after attending the usual courses of lectures, received the degree of M.D. from the College of Physicians and Surgeons in New York. In 1845 he began practice in the homestead, and soon acquired a large and lucrative business. When the war between the States broke out he entered the military service as surgeon of the 4th N. J. regiment with rank of major. He was with the regiment at Fair Oaks, Malvern Hill and all through the campaign of "on to Richmond," and later at Antietam and Chancellorville was at his post of duty. Soon after entering the service he was made brigade surgeon of Kearney's N. J. Brigade, and then director of the second army corps. When General Hancock was wounded at Gettysburgh Dr. Dougherty was immediately by his side and dressed his wound. Dr. Dougherty was brevetted Oct. 12th, 1865, colonel for meritorious services.

After the war Dr. Dougherty resumed his practice. When the New Jersey Home for Disabled Soldiers was organized he was appointed commander and surgeon, and held the position to the time of his death. In 1867 he was appointed postmaster, and held the position until 1869, when he was removed by President Grant. He served in the various offices of the State Medical Society, including that of president and contributed a number of papers to the transactions. He was on the staff of St. Michael's and also on the Barnabas Hospital. He leaves a wife and four sons.

J. M. T.